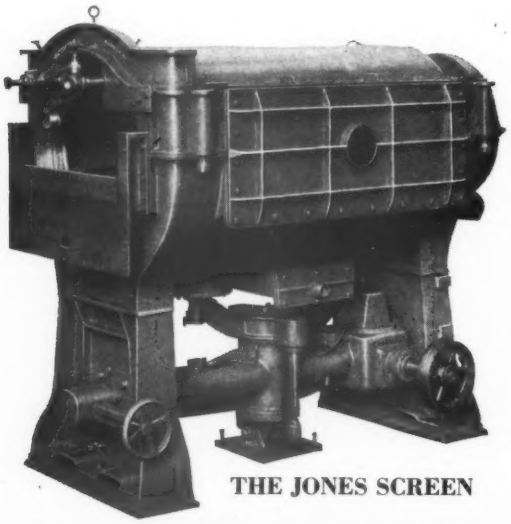
Pacific Pulp & Paper Industry

TOUGH
but GENTLE
in operation

Ruggedly constructed, the Jones Screen is really tough. And for correct screening, its gentle operation, likewise, is vitally important to stock uniformity. With a combination of fine cut plates, spacious vat and drum allowing ample screening area, and the use of gentle screening forces, the Jones Screen delivers a maximum volume of clean, uniform stock to the paper machine. The vibrator plate and vat are designed so that efficient operation is effected with a minimum number of vibrations per minute to assure the gentleness of action so essential to cause the passage of only clean, uniform fibres through the screen slots. Proper control of the movement of the stock through the screen, constant removal of rejects, and many other features necessary for dependable and economical performance are described in the Jones Screen Bulletin.



THE JONES SCREEN

Pacific Coast Representatives: PACIFIC COAST SUPPLY COMPANY
San Francisco, Portland

Jones

E. D. JONES & SONS COMPANY-PITTSFIELD, MASS.

Builders of Quality Machinery for Paper Mills

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Statisticians Can Become Hysterical

THE manufacturing and sales staffs of a large pulp and paper organization attended a meeting not long ago to discuss plans for 1942. As in all such meetings nowadays the question arose as to how much paper will the government agencies need in 1942. There was a difference of opinion when the current statistics were quoted. It was suggested that the estimates be checked by known facts. The group went to work and upon the basis of their own information and that obtained from reliable sources checked the paper and board consumption figures currently appearing in the press.

The results were printed and sent to the mill's distributors for use by the latter's salesmen. Some of the data appears below.

"Here is some doubtful information circulated verbally and in print, followed by a logical analysis of the information in the statements:

"A MILLION TONS OF PAPER NEEDED FOR EACH FIVE MILLION DOLLARS FOR DEFENSE!

"Analysis: If paper cost was as low as $100 per ton, one million tons of paper would cost $100,000,000. The money expended for defense from July, 1940, to July, 1941, is reported as $8,000,000,000; therefore the paper cost would be $160,000,000,000 or twenty times the defense expenditure. If the capacity of the paper industry is 17,000,000 tons per year, the industry would have to run at capacity for 94 years to make that year's paper.

"2,000,000 ROLLS OF TOILET PAPER FOR EACH ARMY CAMP.

"Analysis: Eighty camps would receive 160,000,000 rolls of toilet paper in 1942. Two million men would have to use 80 rolls each. Eighty rolls per man per 365 day year (assuming that no man would go home on leave) would mean that a roll of paper would last a man from Sunday morning until after lunch Thursday.

"1,000,000 PAPER MILK BOTTLES PER DAY FOR EACH ARMY CAMP.

"Analysis: Presuming the bottles will contain milk and figuring 80 instead of 87 camps that makes 80,000,000 bottles per day. If the army totalled 2,000,000 men, each man would have to consume 40 bottles of milk per day. And, if the army totaled 20,000,000 men, and that's some army, each man would have to consume four bottles of milk per day—beginning January 1, 1942.

"100,000,000 POUNDS OF BOOK PAPER AND 100,000 POUNDS OF COVER PAPER FOR SOLDIERS' HANDBOOKS.

"Analysis: 100,000,000 lbs. of paper for handbooks figures 50 lbs. of handbooks for each soldier in an army of 2,000,000 men. Webster's New International Dictionary weighs 15 lbs., is five inches thick, and contains 2736 pages. If each soldier carried handbooks equalling the weight of Webster's Dictionary, it would take one army of 6,673,333 soldiers to use 100,000,000 lbs. of handbooks in 1942."

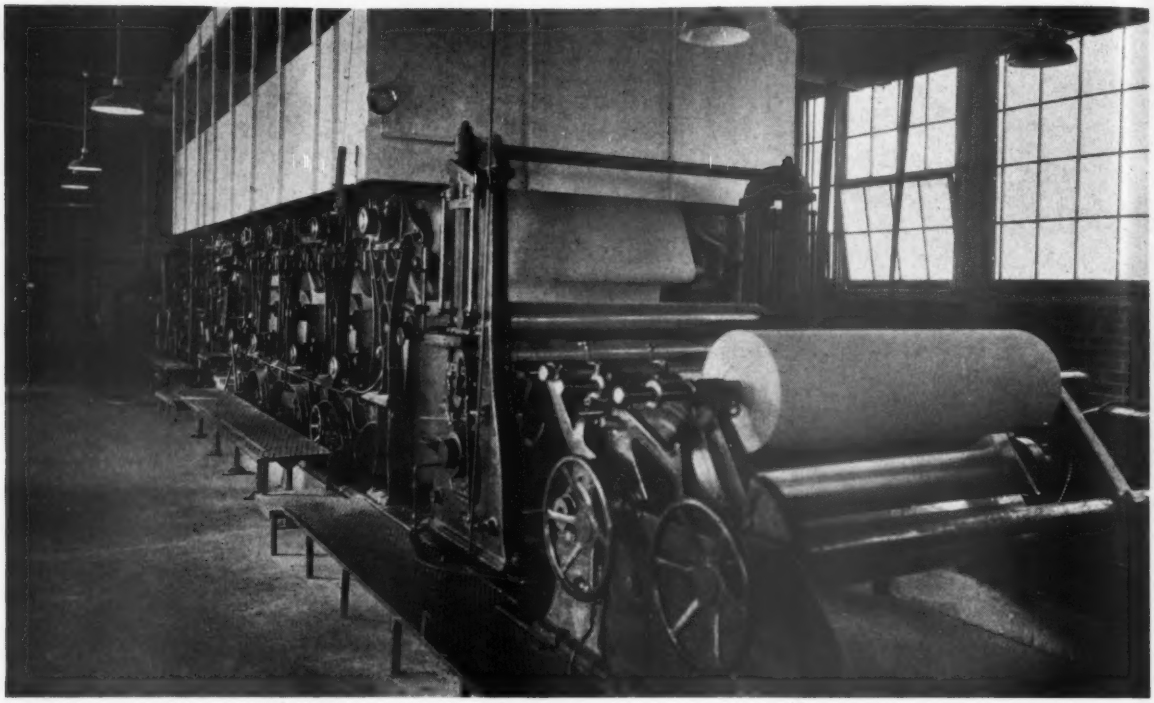
All in all, the above shows the need for accuracy of statements regarding the consumption of paper. This bulletin goes to some length picturing the trend of the industry and the outlook and concludes by stating that statistical calculations indicate the following:

The supply of book paper should be adequate for government and commercial needs in 1942.

The supply of writings and mimeos will be a little short of combined needs in 1942.

The supply of wrapping papers for commercial use will be restricted in 1942 and conservation will be essential.

Paper board will be extremely scarce and adjustments in packing practices will be necessary.



The new 76-inch trim Black-Clawson tissue machine installed in October by the Pacific Coast Paper Mills of Washington at Bellingham.

Pacific Coast Paper Mills Installs Second Tissue Machine

Black-Clawson cylinder machine with 76-inch trim raises production of high grade tissues to 22 tons per day—Expansion marks President J. J. Herb's 53rd year in paper manufacturing.

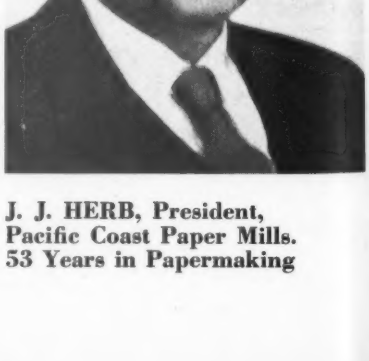
LATE last October, 14 years after operations began, the Pacific Coast Paper Mills of Washington started its second paper machine and increased production of tissues from 15 to more than 22 tons per day.

It was in the Fall of 1927 that J. J. Herb, president of the Pacific Coast Paper Mills of Washington, completed the installation of an 86-inch Black-Clawson fourdrinier paper machine trimming 74 inches, and began the production of toilet tissues and paper towels. Four years later the mill introduced its own brand of toilet tissue, "MD." Through a rigid adherence to high standards of quality, and with the aid of continuous advertising "MD" bleached sulphite tissue has become one of the largest selling brands on the Pacific Coast.

Last October also marked another anniversary, Mr. Herb's 53rd year in the manufacture of paper. In 1888 a youngster applied for a job at the mill of the Wisconsin Tissue Mills in Appleton, Wisconsin, and was handed a broom. The broom wielding took young Herb to all corners of the mill and gave him a chance to observe the various steps in the making of tissue papers.

He was a willing worker and a keen observer so it wasn't long before he had a better job. His progress continued until he became superintendent of the mill in Appleton. In 1911 an opportunity came to go with the Interlake Tissue Mills at Merritton, Ontario. Ten years later Mr. Herb decided to go into business for himself and moved to New Westminster, B. C. Here, with the assistance of local people, he built the Westminster Paper Mills to produce a varied line of tissue papers for distribution in British Columbia and in the Canadian Prairie provinces. The New Westminster mill was destroyed by fire in 1930 but was immediately rebuilt and has grown steadily. A year ago the plant was modernized and production increased.

In 1926 Mr. Herb investigated the idea of building a similar tissue mill in Bellingham, Washington. The proposition appeared to be sound and so plans were drawn for a one machine tissue mill. Wisconsin and Bellingham people joined with Mr. Herb in the venture and the plant was completed in the Fall of 1927. At the start the mill produced both crepe and smooth toilet papers in rolls and flats, and paper towels.



J. J. HERB, President, Pacific Coast Paper Mills. 53 Years in Papermaking

F. J. HERB, Vice President & General Manager, Pacific Coast Paper Mills

A new reinforced concrete two-story building housed the paper machine and auxiliary equipment. No. 1 paper machine, the 86-inch Black-Clawson fourdrinier, together with jordans and beaters were located on the second floor, while the drive and other equipment were placed on the ground floor.

A second building, connected with the second floor of the machine building by an enclosed areaway, houses the converting plant, the warehouse and the office. The converting equipment is located on the second floor of this building in order that rolls of tissue may be trucked from the machines directly to the converting plant. The warehouse and office are on the ground floor. Alongside the mill is a spur of the Great Northern Railway and the Bellingham docks are a very short truck haul away. Adjoining the tissue plant is the unbleached sulphite pulp mill of the Puget Sound Pulp & Timber Company from which the Pacific Coast Paper Mills has purchased steam and a part of its pulp since 1927. The bleached sulphite pulps are bought from other Puget Sound pulp mills.

At the beginning of operations and for four years thereafter the plant produced jobbers' brands of tissue, but in 1931 Mr. Herb introduced the now well-known "MD" brand of toilet tissue as the mill's own brand. The production of "MD" tissue now requires approximately three-quarters of the total tissue output.

Production in 1927 was around 10 tons daily. Improvements increased this to 15 tons on the single machine and the No. 2 paper machine raised the total another 7 tons to 22 tons per day.

The plant has always had orders ahead. A year ago the sales of "MD" tissue reached a point where Mr. Herb determined the only solution was the installation of a second paper machine, together with the latest design of auxiliary equipment. The original machine had been speeded up to the limit.

With the decision to add another machine arose the problem of increasing the capacity of the converting plant to accommodate the additional tonnage. This was solved by the installation in September, 1941, of three modern converting machines; a toilet roll winder with embossing roll and two automatic wrapping and labeling machines.

In August, 1939, the production of sanitary napkins from bleached sulphite pulp was begun, and this business has grown until the capacity of two machines is taxed to keep up with orders.

Since the mill was built in 1927 Mr. Herb has been active in its operation, dividing his time between the Bellingham and New Westminster plants. In charge of Bellingham operations is his son F. J. "Bill" Herb as vice president and general manager. P. J. Onkels has been general superintendent of the Bellingham mill since 1927 and together with J. J. Herb planned the installation of the No. 2 paper machine and supervised its installation. Victor A. Hughes is secretary and William McCush, treasurer. Another son, Elmer Herb, is vice president and general manager of the mill at New Westminster. Directors include J. J. Herb, F. J. Herb, William McCush, R. Quinn Fisher, and Victor A. Hughes of Bellingham; E. M. Herb of New Westminster, B. C., and J. D. Watson of Appleton, Wisconsin.

P. J. ONKELS, Superintendent, Pacific Coast Paper Mills

The New Paper Machine

● When planning for the new paper machine, President Herb and Superintendent Onkels wanted to avoid the expense of enlarging the concrete machine room building. By skillful designing of the machine drive and careful planning of the location of the auxiliary equipment, they succeeded in eliminating any need for building expansion.

The machine room is long and narrow so there was not enough space to permit setting the new machine alongside of No. 1. However, by offsetting the No. 2 machine so that the reel of the latter was almost alongside the headbox of No. 1, the second machine could be fitted into the available space. There was no room for a fourdrinier without lengthening the machine room, so a cylinder was selected. In order to leave sufficient room on the open side of No. 2 and between the reel of the latter and the headbox of No. 1, the No. 2 drive had to be made compact and placed against the outer wall. How this problem was solved is shown in one of the photographs.

Besides the single cylinder machine the new papermaking equipment includes a Dilts Hydrapulper to hydrate sheet pulp for both machines (replacing beaters), one Miami No. 2 jordan and one Miami Selectifier Screen ahead of the new machine. All of the equipment was supplied by the Black-Clawson Company and its two divisions, Shartle Brothers Machine Company and the Dilts Machine Works.

The new machine trims tissue at 76 inches and consists of a McIntyre patent tissue vat (shown in an accompanying sketch), a suction press, creping dryer, bottom felt, top pickup felt, eight regular dryers, a four roll calendar stack and a Pope type reel. The several sections of the machine are driven from an overhead line shaft through Black-Clawson spiral bevel gear units. The whole machine was designed so that should additional production be required a fourdrinier can be installed in place of the McIntyre vat without any further changes.

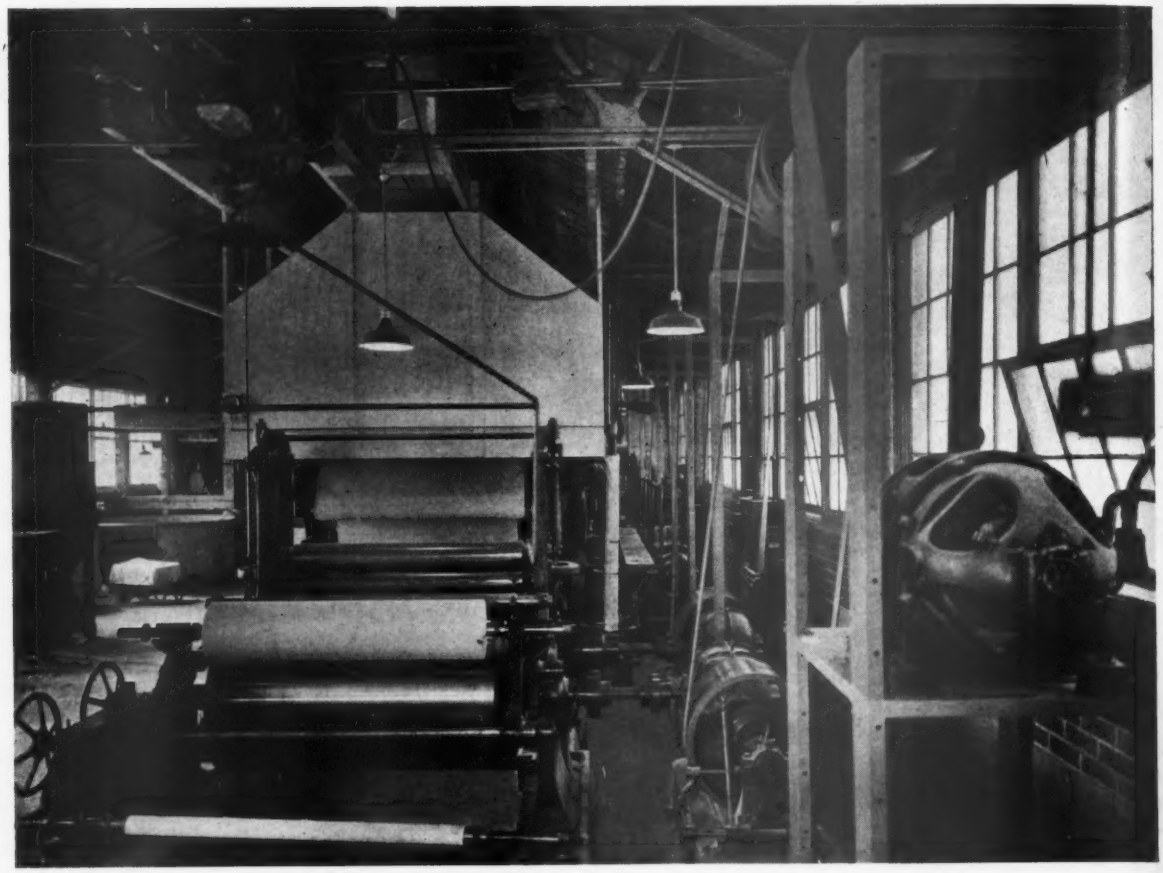
An interesting sidelight on the drive installation involves the source of the steel for the lineshaft supports. Structural steel was hard to obtain and the drive installation would have been long delayed had it come from regular suppliers. Superintendent Onkels recalled that the old steel bridge over the Skagit River near Mount Vernon, Washington, had just lately been replaced by a wider structure. He decided to find out what had become of the old bridge, located it, and obtained enough material for the shaft stands. The old bridge thereby saved the Pacific Coast Paper Mills much tissue production which might easily have been lost.

Inlet, Vat and Slice

● The stock enters the McIntyre vat through a Hydramatic Inlet, recently developed by the Black-Clawson Company. This inlet consists of a rectangular compartment the full width of the machine. In the cover of this compartment is a diagonal slot having movable brass plates on either side so the width of the slot can be varied.

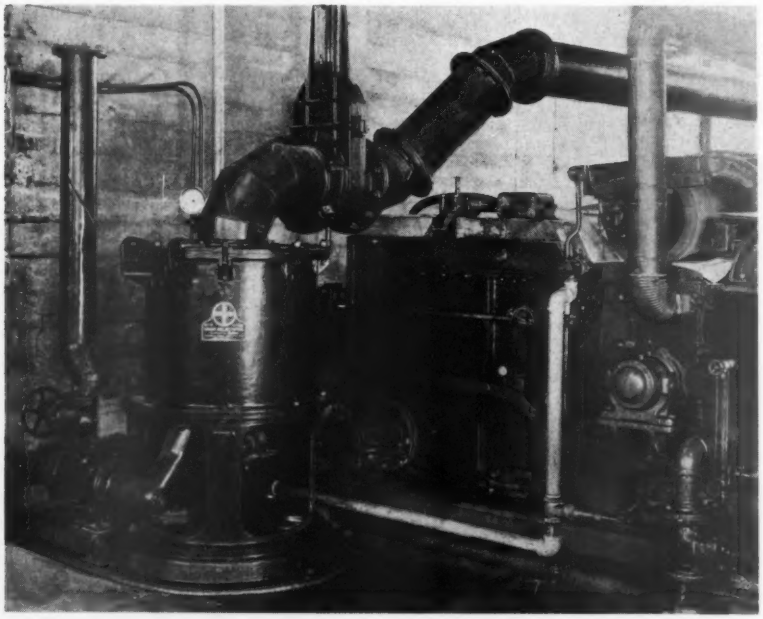
Directly below this slot is a diagonal baffle dividing the compartment into two

VICTOR A. HUGHES, Secretary, Pacific Coast Paper Mills



View of the new tissue machine showing drive details calendar and reel. Note compactness of the drive installation.

wedge shaped compartments. The stock enters at the wide end of these compartments and, as the area decreases in proportion to the velocity of the stock, an even flow is maintained through the slot above the baffle board and into the forming area. The forming area of the McIntyre vat is shown in the accompanying sketch.



The Shartle Miami Selectifier Screen and the McIntyre Tissue Vat on the new tissue machine at Bellingham.

After passing over the baffles the stock flows over a horizontal slice that can be moved toward or away from the cylinder mold while the machine is running. The slice is equipped with wing boards that can also be varied while the machine is in operation, making the edge of the slice convex, concave, or straight as desired, to obtain a level sheet.

Directly above this horizontal slice is another placed in a nearly vertical position with an apron cloth attached to the lower edge. The apron's lower edge is in contact with the cylinder face. This vertical slice can also be moved toward and away from the cylinder face. By manipulation of both of the slices a wide variation of sheet formation can be obtained. The stock travels with the cylinder and an overflow is provided on the far side of the cylinder. This overflow is also adjustable to and from the face of the cylinder, and aids considerably in the formation of the sheet. The stock coming over the overflow is taken directly into the suction of the fan pump.

The vat is of wood construction with cast iron ends. The cylinder mold is 36 inches in diameter with an 86-inch face, mounted on a heavy cast center shaft, with brass spiders on 4-inch centers and heavy brass end rings. Hard drawn ⅜-inch brass rods across the face of the cylinder mold support No. 11 hard copper winding wire, 14-mesh backing wire and 80-mesh face wire. Steel journals with bronze sleeves extend through suitable glands to the outside of the vat and

are carried on self-aligning anti-friction bearings.

This assembly is so designed that bearings, slot covers, glands, etc., all remain on the shaft when the cylinder mold is removed. End rings and garter straps are provided to seal the ends of the cylinder mold to the vat. The vat ends are designed to entirely enclose the cylinder mold end rings. Openings in the slot covers are connected to a small exhauster which breaks up foam on the inside of the cylinder mold, and also helps in the formation of the sheet. A Millspaugh shower keeps the surface of the cylinder mold clean.

Press and Dryer Sections

● From the cylinder mold the sheet is picked off by a bottom felt running around a soft rubber covered couch roll, and passes on through a Millspaugh suction roll. It is then picked up by the top pick up felt and transferred to the creping dryer. The suction roll is 24 inches in diameter, rubber covered, and the top press roll is 18 inches in diameter, rubber covered. The bottom felt on the return side passes over a whipper, through wringer rolls, and over a suction box before coming in contact with the sheet again. The top pick up felt is fitted with a guard board and shower immediately after the creping dryer.

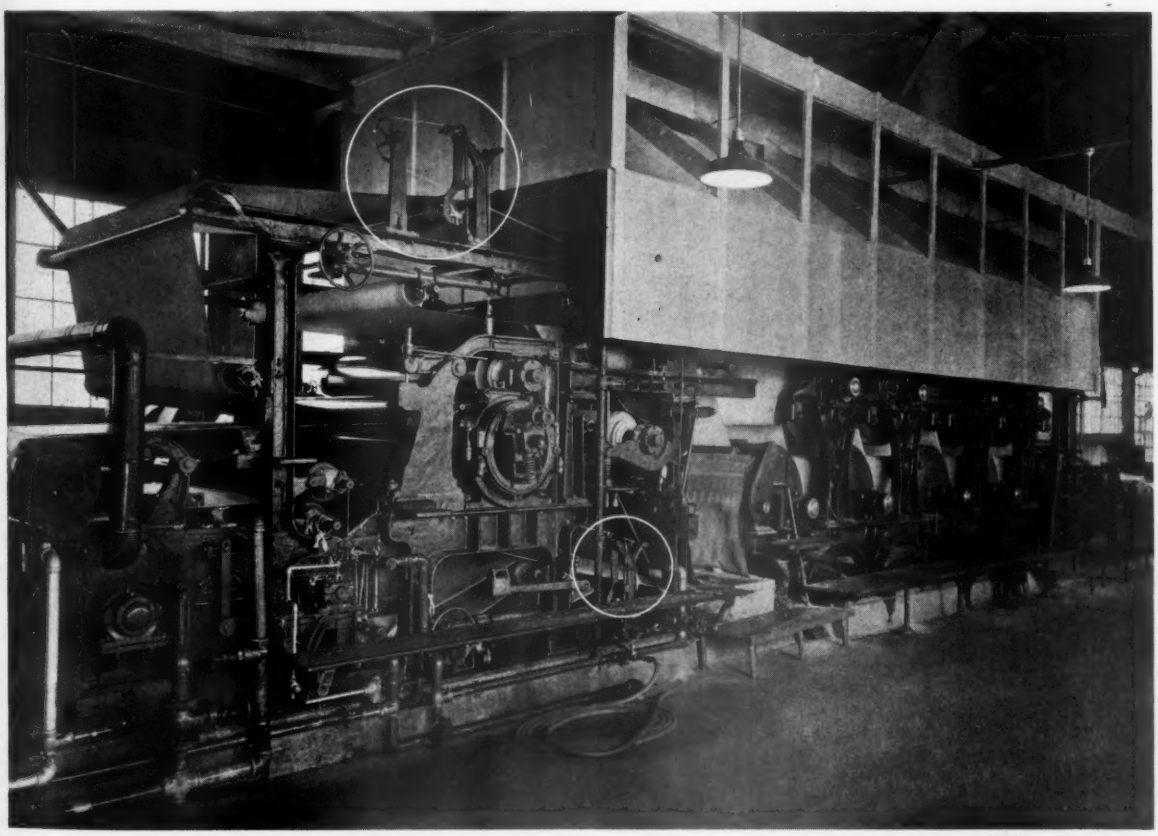
Both top and bottom felts are equipped with stretchers, hand guides and automatic guides. The automatic guides were developed by P. J. Onkels, superintendent, are simple in construction and operation and dependable. All felt rolls are copper covered and mounted in bronze bushed self-aligning bearings. The creping dryer is 48 inches in diameter with 83-inch face and is cast of a special mix close grained semi-steel, highly polished and balanced. It is mounted in anti-friction bearings, grease lubricated. The journal on the back side of the machine is extended to take a gear drive and is fitted with a Miami self-pressure regulating oil-less packing box. The creping doctor is of Vickery design and provided with a vertical and horizontal adjustment. A Black-Clawson No. 0 spiral bevel gear enclosed drive unit is connected direct to the suction press. The creping dryer is driven from the press drive shaft through a belt and cone pulleys. The drive unit has cone pulleys with 40-inch faces to allow a 17 per cent differential in speed between the press section and the dryer section for maximum creping.

The sheet is carried from the creping doctor to the dryer section on two brass worm rolls driven by a variable pitch V-belt pulley mounted on an extension of the journal of the felt roll at the wet end of the dryer section.

The dryer section is made up of eight Black-Clawson seamless dryers, 48 inches in diameter by 80-inch face, equipped with bronze lined bearings, cut gears and Miami oil-less type packing boxes. Steel pipe felt rolls mounted in bronze bushed self-aligning bearings carry the top and bottom dryer felts. Both felts are equipped with stretchers, hand guides and automatic guides of the same type used on the wet end felts. The dryer section is driven by a Black-Clawson spiral bevel gear enclosed drive unit No. 00, with a 21-inch face pulley.

The calendar section is composed of a 16 inches in diameter bottom roll, two intermediate rolls, 10 inches in diameter, and a 12 inches in diameter top roll. The bottom roll is mounted in a water-cooled plain bearing. The intermediate rolls and the top roll are mounted in bronze bushed bearings, grease lubricated. The rolls have a face of 84 inches and are equipped with Lodding uniform pressure doctors having stainless steel blades and a quick release arrangement. The calendar section is driven by a Black-Clawson spiral bevel enclosed drive unit No. 00 with a 21-inch face cone pulley.

A uniform speed reel of the Pope type follows the calendar section. Its reel drum is 42 inches in diameter and 80 inches long, mounted on heavy-duty anti-friction bearings, is provided with a flexible blade doctor and an adjustable spreader bar. The front side journal is



The McIntyre tissue vat with single cylinder, press section, creping dryer and 8 regular dryers. Exhaust hood is of resin-bonded waterproof plywood.

Circled are the automatic felt guides developed by Superintendent P. J. Onkels. The rope extending just under the hood in the upper part of the picture is fastened to the end of a cone shaped smooth bronze collar on the end of the felt roll. As the felt runs off the roll onto the collar the pull exerted moves the guide roll in the circle, straightening out the felt. When the felt moves away from the collar, counter-weights behind the arm (not showing) pull the guide roll back.

The felt guide is rapid in action and doesn't wear the felts, according to Superintendent Onkels who has used it for a number of years.

The Hydrapulper as it appears when empty. In the center the 3½-foot impeller with vanes, and surrounding it is the heavy ring on which are mounted the stationary vanes which aid in giving the stock a vortical circulation.

hollow bored and arranged for the circulation of water inside the drum if necessary. The reel shafts can be withdrawn easily from the steel cores when the finished roll of paper is taken from the reel. The reel is driven by the same type and size drive unit as is employed to drive the dryer and calendar sections.

Parts Interchangeable

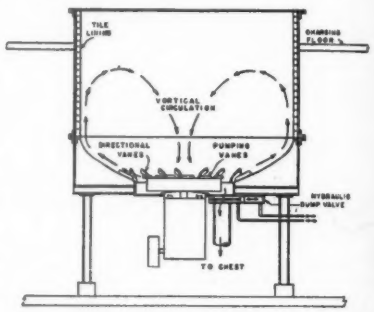
● All possible parts of the new machine were made to be interchangeable with the No. 1 paper machine, to reduce to a minimum the stock of spare paper machine parts kept at the mill.

Stock Preparation Equipment

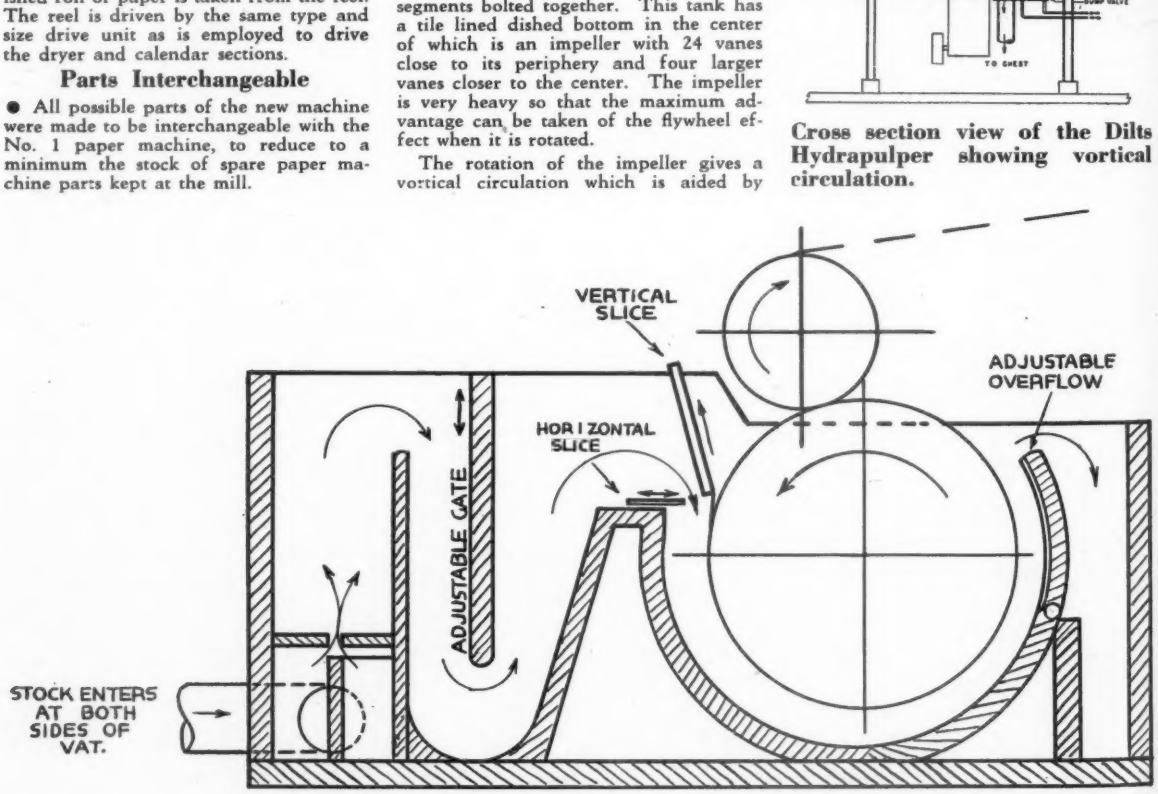
● The Dilts Hydrapulper, shown in the sketch and in the photograph, is a cylindrical open top tank built up of cast iron segments bolted together. This tank has a tile lined dished bottom in the center of which is an impeller with 24 vanes close to its periphery and four larger vanes closer to the center. The impeller is very heavy so that the maximum advantage can be taken of the flywheel effect when it is rotated.

The rotation of the impeller gives a vortical circulation which is aided by stationary directional vanes mounted on the tile lined, dished bottom of the tank. The stock and water in the tank are drawn down onto the impeller and thrown outwards at high velocity, passing through the main body of stock which is moving at a relatively low velocity, producing defibration by hydraulic action combined with some mechanical action through the pulp coming in contact with the impeller vanes. While the stock has this vortical circulation, it is also rotating slowly in the direction of the rotation of the impeller and this insures every fiber receiving the same amount of treatment. It is impossible to plug this type of pulper as there are no confined spaces through which the pulp has to pass.

The Hydrapulper tank has an inside diameter of 10 feet and an overall height of 8 feet. The cast iron segments of the tank are supported on a heavy meehanite supporting ring casting and housing, provided with packing box assembly with Cup-Lok packing and water seal. Openings are also provided in the casting for two hydraulically operated 12-inch emptying valves, and a 6-inch hydraulically operated washout valve. These valves are of the sliding gate type, oper-



Cross section view of the Dilts Hydrapulper showing vortical circulation.



McINTYRE TISSUE VAT.

ating flush with the bottom of the pulper to eliminate pockets in which stock or color might lodge.

To the underside of this supporting ring is fastened a heavy duty spiral bevel gear reduction unit having a gear ratio of 3 to 1 and fitted with oversize thrust bearings and ball guide bearings. The spiral bevel gears are SAE 3120 steel, flame hardened, and the main vertical shaft and pinion shaft are SAE machinery steel. The gears are totally enclosed and run in oil. A small oil pump, driven off the end of the pinion shaft, circulates oil up to the guide bearing on the vertical shaft.

The impeller in the bottom of the pulper tank is a heavy Meehanite casting, 3 feet 6 inches in diameter and 5 feet thick, to which are fastened stainless steel vanes tipped by welding with a very hard abrasion resistant metal. The vanes can readily be renewed without disturbing the rest of the hydrapulper assembly. If desired the gear box assembly and impeller can be removed through a V-belt pulley mounted on the pinion shaft.

Six radiating H beams support the sides and bottom of the pulper. These, in turn, are supported on six vertical H beams provided with floor plates resting on the basement floor and raising the top edge of the pulper tank about 12 inches above the machine room floor. A sheet metal guard 4 feet high surrounds the pulper tank except for an opening left for charging.

The Hydrapulper is charged in batches of 1200 pounds of sheet pulp. Color and chemicals are added and when pulping is completed, discharged to the respective machine chests through two 6-inch Shartle Class D pumps. These pumps are of the solid casting type, overhung impeller, with a tapered suction connection fitted with a cleanout port. Side plates are of cast iron. Impeller and packing boxes are of bronze and the shaft is of SAE 1040 steel fitted with a bronze sleeve where it passes through the packing gland. The pumps are supported on heavy cast iron bases extended to support and align the driving motors. Flexible couplings are provided between pumps and motors.

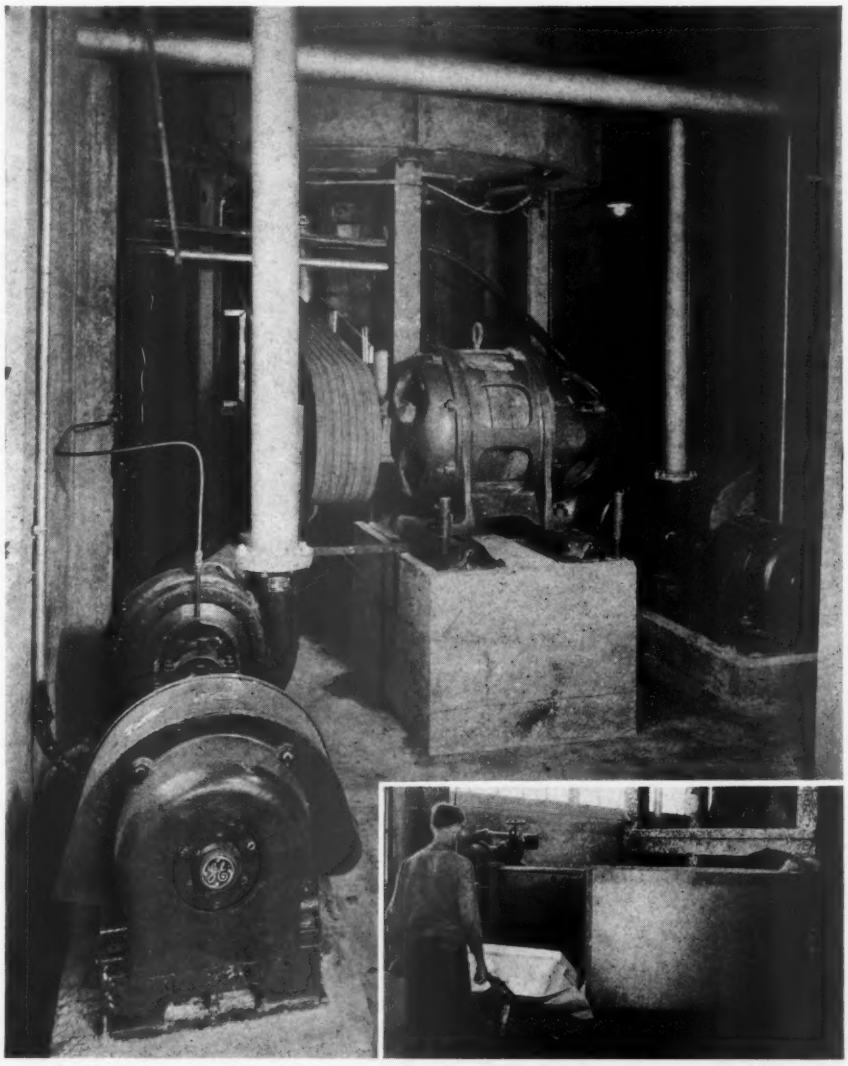
The entire assembly of Hydrapulper and stock pumps takes up a minimum of floor space in the basement as the pumps are located directly beneath the pulper. The top of the pulper occupies a fraction of the space on the machine room floor formerly taken up by the beaters which hydrated sheet pulp for No. 1 paper machine only. The Hydrapulper is located alongside the elevator and pulp bales from storage on the first floor can be brought to the pulper on the second or machine room floor with a minimum of effort. Entire bales can be dumped into the Hydrapulper without danger of plugging.

Stock Jordaning

• Stock from the No. 1 stock chest is delivered to the mixing box on the machine room floor by a Shartle duplex plunger type stock pump with plungers 8 inches in diameter and having an 18-inch stroke. From the mixing box the stock flows by gravity to a Shartle Miami No. 2 jordan which is driven at 400 r.p.m. by a General Electric synchronous motor. The movement of the plug is taken care of by a pin type telescopic coupling. The body of the jordan is made of high grade cast iron, heavily ribbed, and provided with two hand holes and three 8-inch stock inlets, one on top and one on each side. A large sand trap is located at the inlet end and provided with a quick-opening cleanout door. The shell is filled with $\frac{3}{16}$-inch chrome steel bars, 1¾ inches deep and of chrome steel arranged in single form. The X-66 type plug provides for supporting the bars on both side in the body of the plug for their full length, and not at intervals as in earlier designs. The plug shaft is 4140 alloy heat treated steel, 5⅜ inches in diameter, and fitted with ¼-inch phosphor bronze sleeves. The plug is pressed on the shaft and both the small and large ends are protected against corrosion by 18-8 stainless steel flanges formed to the contour of the plug and assembled by welding.

The plug and shaft are balanced after assembly. Messenger straight roller bearings are used with double thrust. Thrust can be taken on both sides of the thrust bearing permitting pressure jordaning if desired. Seals are provided at each end of the bearings with single type Gatke ring springs to take up wear on the seals. The plug adjustment is made by means of a hand wheel and thrust screw mounted on the center line of the shaft and is provided with a micrometer adjustment and a locking device. Both end bearing and thrust bearing ways are bored circular, insuring exact alignment of the plug in the shell at all times. The mixing box designed and fabricated at the mill to suit their own particular requirements is mounted beside and above the jordan.

The discharge from the jordan is through a 4-inch copper pipe led into the suction of the machine fan pump. This pump is a 10-inch class A Shartle Miami double suction high efficiency water pump. The casing is of close grained cast iron split horizontally enabling the complete rotor element to be removed without disturbing either the suction or the discharge connections. Stuffing boxes, feet for mounting on the base, and bear-



The underside of the Hydrapulper showing the 75 H.P. 2300-volt, 490 R.P.M. General Electric motor driving the spiral bevel gear reduction unit suspended from the bottom of the Hydrapulper, through V belts.

The two centrifugal stock pumps are Shartle Miami Class D pumps handling stock discharged from the Hydrapulper to the two machine chests. Insert shows the Hydrapulper being charged with a bale of pulp.

ing brackets are all cast integral with the casing. The impeller is of the open type, pressed on a short heavy shaft that is supported at both ends in Timken roller bearings. The shaft is SAE 1035 hot-rolled alloy steel, and is protected by bronze sleeves where it passes through the packing glands. The glands are provided with renewable bushings and water seals. Side plates inside the casing are also renewable. Motor and pump are mounted on a heavy cast iron base and both units may be exactly aligned.

This pump discharges into a Miami Selectifier Screen, a development recently placed on the market by the Shartle Brothers Machine Company Division of the Black Clawson Company. In the plant of the Pacific Coast Paper Mills of Washington at Bellingham, the Selectifier is located alongside the McIntyre vat. The screen consists of a cylindrical casing flanged at the top and bottom for a top cover plate and for mounting on the base. The stock enters the top of the screen through a 12-inch raising stem gate valve and a 12-inch chrome steel elbow, and passes to the inside of a stationary screening cylinder, 24 inches in diameter and 24 inches in height, with 0.094-inch performations.

Twelve scrapers of 3/32-inch stainless steel and 24 inches long, are rotated inside this cylinder and are held against the interior surface of the cylinder by beryllium bronze springs. The scrapers are mounted on a central cage and are detachable so that any number up to 24 can be used, depending upon the cleanliness of the stock being screened. The cage holding the scrapers is driven by a shaft projecting through a gland in the bottom of the casing from a reduction unit mounted on the base below the casing. The stock passes through the perforations in the screen cylinder into a space between it and the casing and through an outlet to the machine.

The rejects drop to the bottom inside the perforated screen cylinder from which they are removed by means of an automatic relay valve discharging to the sewer. The relay valve can be set to suit the stock being screened. The frequency of the opening of the valve depends upon the cleanliness of the stock. The gear reduction unit driving the scrapers is driven by a 5-h.p. motor, and the reject valve is driven by a ½-h.p. motor. The screen and motors are all mounted on one base making a very compact unit requiring a minimum of floor space.

Electrical Equipment

● The new paper machine is driven by a 150-h.p., 2300-volt, 575-r.p.m., slip-ring, Westinghouse motor. A General Electric 150-h.p., 2300-volt, motor drives the new jordan, and another General Electric motor of 75 h.p., 2300 volt, 490 r.p.m., drives the Dilts Hydrapulper.

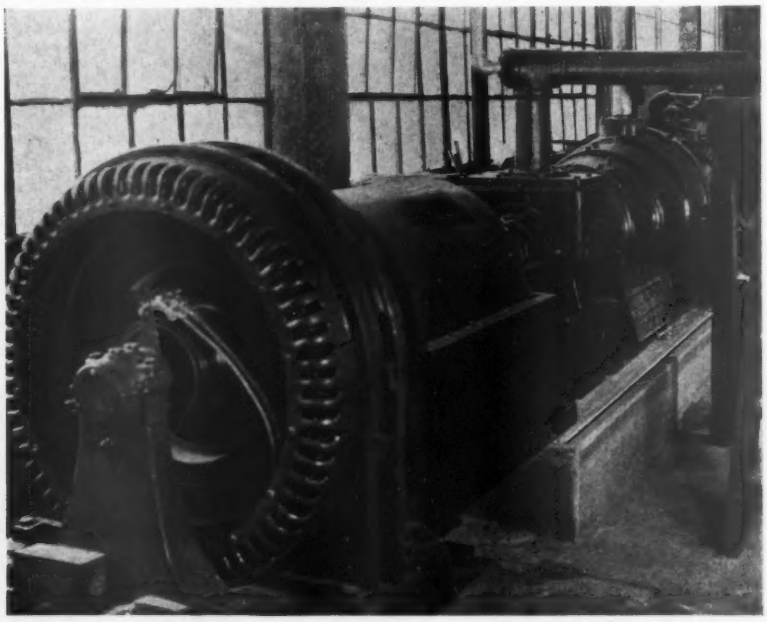
Pacific Paperboard Modernizes Converting Dept.

● Pacific Paperboard Company, Longview, Washington, is modernizing the converting department of the plant by the installation of a two-color printing press, a single-color press and a cutter and creaser. The two-color press is a fully automatic Miehle capable of handling 44 by 62-inch sheets. This machine is about 34 feet, six inches in over-all length and has capacity of 1800 sheets per hour.

The single-color press is also a Miehle. It is about 27 feet long and will take 40 by 62-inch sheets, with a capacity of about 1500 sheets per hour. This machine is expected to be in operation by the first of March and the two-color press will be in service by mid-February.

A Miehle cutting and creasing press is expected to be in operation in March. This machine has capacity of 1800 sheets per hour and accommodates 44 by 62-inch sheets.

The company has formerly operated one Miehle single-color press for printing three by four-inch egg cartons, and they have two Babcock creasing and cutting machines at the plant.



The new jordan, Shartle Miami No. 2, driven by a 150 H.P. 2300-volt General Electric Motor.

Camas Credit Union Declares 4% Dividend

● Crown Camas Federal Credit Union, Camas, Washington, composed of employees of Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, declared a four percent dividend at the annual meeting held January 14th. Officers for 1942 were elected at this meeting. Those elected are as follows:

President, Leo Jermann; vice president, Howard Burrell; treasurer, Mrs. Frances Six; E. D. Vickers, W. S. Howard, Carl Hinman. The officers also serve as directors.

Credit committee: chairman, Joe Ulowetz; J. W. McColm, A. Douglass, John Liedtke, and E. A. Paul. Supervisory committee: chairman, R. E. Moisant; Roy Keller, and Lester Schotz.

Established in 1936, the Camas Credit union has grown steadily. During the past year its assets have more than doubled, totalling $51,000 on December 31st. The organization is qualified as an agent for selling defense bonds and is selling these to members and non-members. There are between 1,000 and 1,100 members in the Crown Camas credit union.

Loans are repaid to the credit union by means of payroll deductions and members are required to participate in regular monthly savings as well as re-payment of the loans. To date $160,727.10 has been loaned by this organization since it was first organized. Of the last $89,000 loaned, eight cents has been charged off as "a loss."

Fibreboard Athletes Doing Well

● Fibreboard Products Inc., Vernon Division (Los Angeles), athletes are giving a good accounting of themselves in various current sports centers. In tennis, Kenny Batesole and Don Honeycutt are taking the Southeast Industrial Athletic Assn. trophy in the Annual Doubles net championship (the two men have won the event three years in a row); in golf, Joe Porter, Sam Cormaci, Jack Holmes and Gene Ridings now possess the divot-diggers' trophy; in basketball, team manager Clair Crotchett announces that hoopsters Ritchie, Van Wie, Kimball, Batesole, Brandeberry, Peterson, Supin, Pleiser and Uruburu have taken a league championship; in bowling, three teams from Fibreboard will enter the 7th Annual Tournament of the Southeast district Bowling Assn.

Braun Reports Interesting Radio Experience

● Carl E. Braun, vice president and mill manager of the Hawley Pulp & Paper Company, Oregon City, and chairman of the Pacific Section of TAPPI, is an enthusiastic radio amateur, having acquired his interest while a radio operator in the Navy in the last war. Several years ago he installed an efficient radio telephone in his home near Oregon City and until the war began, conversed daily with other amateurs throughout the world.

On Sunday, December 7th, Mr. Braun was talking with several amateurs in Honolulu when the Japanese bombing raid began. The conversations continued and Mr. Braun recorded some of them for posterity.

Twenty-Six Camas Men Join Up in January

● During the month of January, 26 employees of Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington, joined with the nation's armed forces. Nearly all of these were enlistments.

Seven of the 26 men joined the army, three went in the naval reserves, four joined the marines, five went with the army air corps and seven joined the navy.

George Charters Recovering From Illness

● George W. Charters, assistant resident manager, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington, was taken ill on January 7th. He was taken to a Vancouver hospital, where he was confined for about two weeks. It is not expected that Mr. Charters will return to his job for several weeks, but he is said to be well on his way to recovery.

Port Angeles Men Enter Service

● Among the men enlisting or being inducted into the service recently from Port Angeles, Wash., pulp and paper mills were James Miksch and Cliff Bauer, navy, from Rayonier Incorporated; Ray Maupin, army, Fibreboard Products Incorporated and Laurent Lamoureux, navy, Crown Zellerbach Corporation.

Foster Odom Believed Drowned

● Foster L. Odom of Oregon City, Oregon, is thought to have been drowned as the result of an automobile accident on the Columbia River Highway, near Troutdale, on January 6th. He was associated with Hawley Pulp and Paper Company from 1932 to 1939, as mechanical engineer. He later set up his own business as a general contractor. Mr. Odom's most recent work in the pulp and paper field was at the plant of Spaulding Pulp and Paper Company, Newberg, where he was engaged as consulting engineer.

Mr. Odom was driving up the highway, adjacent to the Sandy River, when his automobile plunged over the bank, into the river. Although the car was almost entirely covered by water the other occupant of the automobile, Norman Cherry, was rescued by passers-by, but there was no trace of Odom. His body had not been recovered when this item was written early in February.

Mr. Odom was 51 years old and was born in Tennessee. He graduated from Oregon State College, obtaining his degree as a mechanical engineer.

Pacific Paperboard Electrifies No. 1 Machine Wet End

● Pacific Paperboard Company, Longview, Washington, has electrified the wet end drive of No. 1 board machine. This job was completed on January 26th, after an eight-hour shut-down. The machine was stopped at 7:00 p.m. and resumed at 3:00 a.m., the following morning, with a 150-h.p. General Electric motor driving the wet end.

This conversion releases additional steam for the recently installed No. 2 board machine.

New Los Angeles Board Mill To Start in June

● By May or June of this year, a new chipboard plant in Los Angeles is expected to begin production of about 20 tons per day, according to W. H. Kewell, a director of the newly formed West Coast Paperboard Mills, Inc.

Mr. Kewell, an executive of Los Angeles Paper Box Company, stated that the new company was capitalized for $500,000 by eight directors.

A new plant is being constructed at South Eastern Avenue and East 61st Street in the Southgate area of Los Angeles. A two-story building will house a second-hand board machine purchased in Dallas. The machine, long idle in the plant of Fleming and Sons, Inc., has five cylinders, is 72 inches wide and trims a sheet 64 inches wide. It will be accompanied by all necessary auxiliary equipment to produce chipboard from waste paper.

A former Beloit Iron Works man, Mr. Salisbury, was in Texas early in February supervising dismantling of the machine, and will supervise its installation at the new plant.

Mr. Kewell, who estimates cost of the new venture at $85,000, did not reveal what would be the final disposition of the chipboard from the new plant, but it is expected that the entire output will be consumed by several Pacific Coast paper box companies represented on the board of directors.

St. Regis To Install Additional Boiler

● The St. Regis Paper Company, Kraft Pulp Division at Tacoma, Washington, has ordered a new boiler with auxiliary equipment to provide additional steam generating capacity, according to an announcement by Niles M. Anderson, general superintendent.

The new unit will be placed in operation the latter part of July. The boiler, a Babcock & Wilcox, three-drum Stirling type of 825-h.p., will generate 90,000 pounds of steam per hour at 250 pounds pressure and a superheater will provide total steam temperature of 475 degrees Fahrenheit. The boiler will normally operate at 225 pounds pressure as do the other boilers in the mill's steam plant.

Hogged fuel will be burned in three furnaces as the main fuel and oil will be auxiliary. An air heater will produce air at 550 degrees F. Economy water-cooled grates in the Dutch ovens will minimize slag formation and facilitate cleaning. A large Bigelow Liptak arch will be erected over the three Dutch ovens.

The installation of a Western Precipitation Corporation Multiclone with 36 tubes will trap the charcoal and fly ash produced by the burning of hogged fuel, and permit the use of a steel stack, 70-feet high and 7-feet in diameter, mounted on top of the boiler building.

To house the new boiler and auxiliary equipment St. Regis is building an addition to the south side of the present steam plant which will be of steel, concrete and brick, 36-feet wide by 68-feet long and 48-feet high. Marshall and Barr, consulting engineers, Exchange Building, Seattle, are designing the new building and will supervise its construction. C. C. Moore & Co., Engineers, will supervise the boiler installation through their Seattle office.

Ground clearing for the building addition began February 5th.

Joe Ryberg Now With Longview Fibre

● Josef E. Ryberg, mill manager of the St. Helens Pulp & Paper Company from 1931 until January 20th of this year, became associated with the Longview Fibre Company of Longview, Washington, on January 26th.

In his new connection Mr. Ryberg is serving as kraft mill consultant. He is a member of the American Pulp & Paper Mill Superintendents Association. Before coming to the Pacific Coast in 1931, Mr. Ryberg was associated with the Calcasieu Sulphate Paper Company at Elizabeth, Louisiana and prior to that connection he was with the Mosinee Paper Mills Company at Mosinee, Wisconsin.

Buff Natwick a Grandfather

● A son was born to Mr. and Mrs. Kern Hendricks, of Portland, Oregon, January 16th. Mr. Hendricks is associated with Miller and Zehrung Chemical Company and is a son-in-law of A. G. "Buff" Natwick, assistant resident manager, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington.

The son, William Kern Hendricks, Jr., called "Wick" for short, weighed 8 pounds, ten ounces when born at the Emanuel hospital. It is reported that mother, son and father are "doing well."

THE COVER PICTURE

Cellulose Sausage Casing shows promise as emergency water hose for fighting forest fires in United States Forest Service experiments. See descriptive article in this issue.

Speakers' Table at the FIBREBOARD ANTIOCH PIVOT CLUB DINNER ... Left to right, Miss LORETTA KELLEY, for 30 years head of the Antioch billing department; N. M. BRISBOIS, Vice President in Charge of Production; GEORGE W. HARTER, Plant Manager; CHARLES M. MEYERS, Superintendent; and C. M. STITT, Plant Engineer.

Fibreboard Pivot Club Meets at Antioch

ON Tuesday evening, December 16, 1941, the Pivot Men's Club of the Antioch, California Division of Fibreboard Products Inc., held their semi-annual social meeting at the American Legion Hall in Antioch.

One hundred and ten employees gathered around the dinner table, headed by Mr. N. M. Brisbois, vice president in charge of production, who was a visitor from Stockton.

Guest of honor for the evening was Miss Loretta Kelley who for 30 years has been the head of the Antioch Division billing department, and holds the honorary position of president of the 20 Year Club.

At a social meeting following the dinner, plant manager George W. Harter introduced all employees present who had received service pins during the past six months period. Following this, Mr. Brisbois painted a brief but highly interesting sketch on the growth of Fibreboard during the past 20 years, and predicted that the future held promises of still further progress for the whole west coast area.

Fibreboard Products Inc. has been carrying on a suggestion contest in which employes are encouraged to hand in suggestions for improvements in plant operation and safety. Employes who hand in suggestions that are adopted are rewarded with cash prizes.

Mr. Broisbois revealed during his talk that so far 13,702 suggestions have been received from the seven divisions, out of which 8,466 suggestions have been adopted, or a total of 61.8%.

At Fibreboard, Antioch Division, a total of 271 employees have received service pins denoting five years or more of service. These pins include 102 five years and under ten, 78 pins 10 years and under 15, 63 pins 15 years and under 20, 19 pins 20 years and under 25, 5 pins 25 years and under 30, 3 pins 30 years and over, and 1 pin to Charles Meyers, superintendent of the board mill—39 years. Service pins were presented to employees by Mr. Brisbois, who acted as toastmaster for the evening. One of the interesting points of the evening was that Mr. Brisbois was able to tell points of interest about each recipient's family life and hobbies, and he knew them all by their first names.

The Antioch Division of Fibreboard is quite proud of its various service groups and justly so, for in the 20 Year Club are 28 members whose service to the company varies from 20 to 39 years.

These members whose pictures are shown in one of the accompanying photograps are as follows: Charles Meyers, 39 years; Vito Tino, 33 years; Ross Sigari, 33 years; Miss L. B. Kelley, 30 years; O. A. Plank, 29

FIBREBOARD SERVICE PIN RECIPIENTS at ANTIOCH, California.
In the top picture is the 20-Year Group, left to right, seated: J. MARKS, A. PINTO, A. VRAMIS, G. W. HARTER, L. B. KELLEY, C. M. MEYERS, G. GOULARTE, O. PLANK and R. SIGARI. Standing: J. GONZALES, C. NOTIS, G. VANDERBUNDT, J. MAYBERRY, A. CANICO, M. A. RODRIGUES, R. HODGSON, W. ALTIZER, M. GORI, R. GUNNETT, I. BRIGHTMAN, J. XAVIER, N. YIOTIS, I. ROTHER and A. LUIZ.

The 15-Year Group in the second pictures includes: Seated, left to right, G. STRATHEARN, W. EELIS, R. COLVIN, S. CARVALHO, F. LUCCHI, and A. MOORE. Standing, W. SIGARI, G. PANTELL, C. M. STITT, W. JOHANSON, F. PEREIRA, J. SARMENT, P. AYERS, C. WOOLCOTT, M. CONE, E. O'CONNOR, F. COONEY, E. ZUMWALT and F. BEEMAN.

The 10-Year Group in the third picture from the top includes: Seated, C. CEKOLA, S. A. WARREN, D. MATTHIES, J. McKINNON, D. E. LITTLE and T. BURROWS. Standing, F. DEL ROSA, B. MEYERS, J. ERICKSON, L. HANSON, A. ROBERTS, H. HOBBS, H. D. REDDICK and E. VASSAR.

The 5-Year Group in the bottom photograph includes left to right, seated: J. MINTA, M. MEDEIROS, J. MILES, E. FRIEMERING, S. VALENZULA and J. ROBINSON. Standing, J. PAULO, A. SAUCERMAN, K. OGG, J. BOWERS, K. NELSON, R. BOTELHO, J. BOYD, W. SULLIVAN, A. ARENZ, J. SILVERIA, W. VAN VOORHIS, V. IVES, J. HAMPTON, A. KEITH, W. CANADA AND J. JOSEPH.

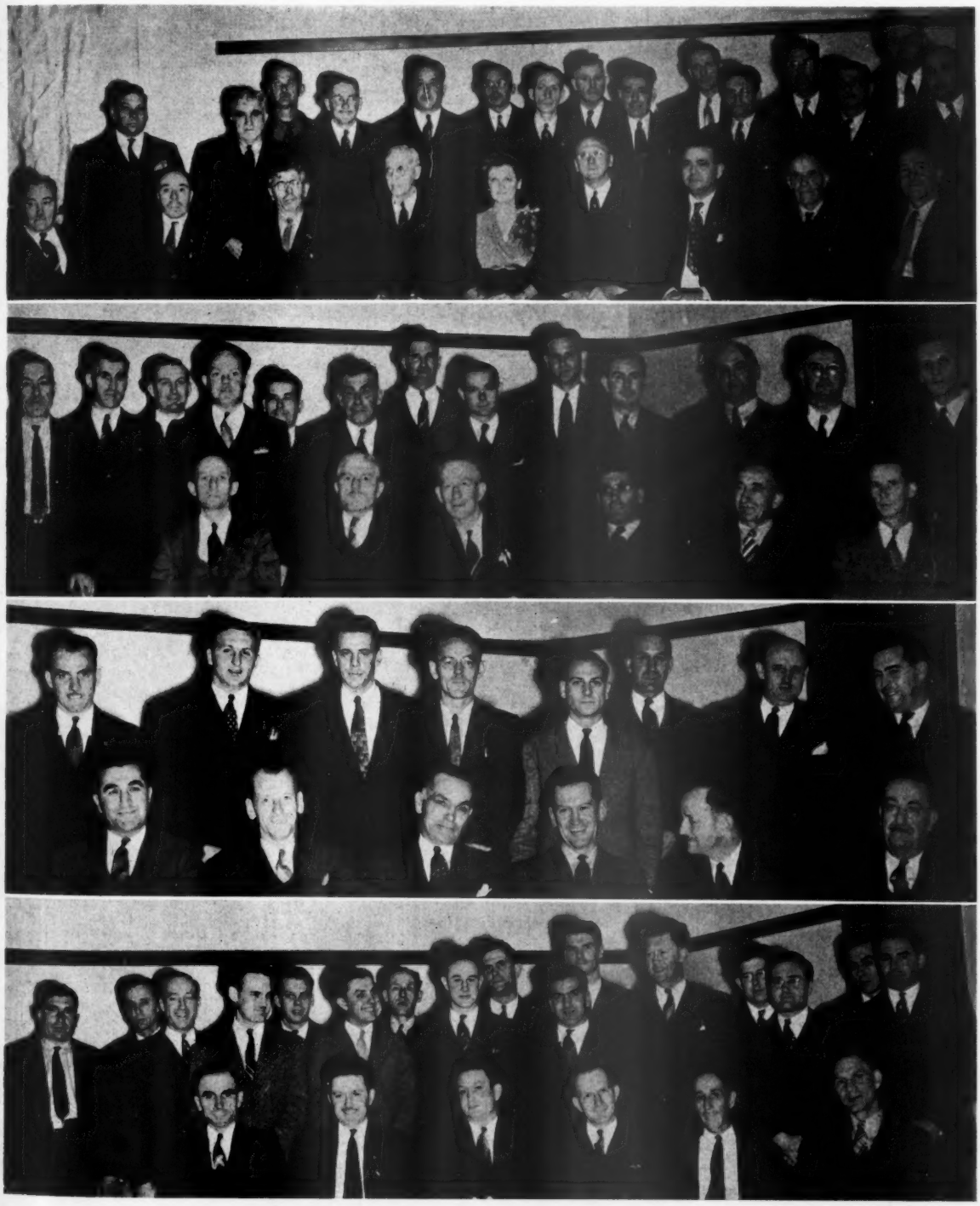
years; C. Graziani, 28 years; Walter Altizer, 28 years; George W. Harter, plant manager, 28 years; M. A. Rodrigues, 25 years; J. Xavier, George Goularte, and A. Vramis, each 24 years; J. Marks, A. Pinto, N. Yiotis, R. Gunnett, and George Vanderbundt, each 22 years; A. Canico, A. Gonzales, C. Notis, A. Luiz, J. Mayberry, and I. Brightman, each 21 years; I. Rother, W. Linn, M. Gori, R. Hodgson, and O. Haugen, each 20 years.

Fibreboard at Vernon Sets Up New Shifts

● Starting February 2nd, new shift hours were installed for Fibreboard Products Inc., Vernon Division machine, beater room and tour workers on the mill side of the plant. New shifts now run from 7-3, 3-11, 11-7. A majority of men preferred the new schedules.

St. Helens Diffuser Explodes

● St. Helens Pulp and Paper Company plant, at St. Helens, Oregon, suffered damage to the extent of several thousand dollars the night of January 5th, when one of three diffusers on the second floor blew out, while in operation. Production was shut off for twelve hours and then resumed at 75 per cent capacity for the next seven days. The plant is now back on a normal production basis.



Puget Sound Reports Record Production, Profit, Taxes in 1941

Federal taxes of $2,001,379 exceed profit of $1,121,730 by $879,730—Production of 143,038 tons averaged 398 tons compared with total of 128,136 tons and 368 tons daily average in 1940—Taxes in 1940 were $665,000 and profit $795,553.

PUGET SOUND PULP & TIMBER CO.'S fourth quarter results exceeded those of any previous quarter and rounded out 1941 as the best year thus far in the company's history, according to its preliminary report to stockholders.

Figures subject to year-end audit indicate net profit of $1,121,730 for 1941, after estimated federal tax provisions of $2,001,379. In 1940 net profit was $795,553 after federal tax provisions of $665,000. Net available to common stock in 1941 was $3.22 a share, compared with $2.40 a share in 1940.

Production of unbleached sulphite pulp was 143,038 tons in 1941, with average daily production of 398 tons, compared with 128,136 tons total and 368 tons daily average in 1940.

Net sales of $8,423,941 in 1941 compared with $6,022,583 in 1940. Operating profit amounting to $3,125,204 before tax provisions compared with $1,874,908 in 1940.

Indicative of business conditions in 1941, it required an increase of $2,401,358 in net sales and an increase of $1,250,296 in profit before tax provisions and non-recurring items to produce $326,177 increase in net profit.

In the fourth quarter of 1941, provision for federal normal income and excess profits taxes was increased from 60 to 63 per cent, and 3 per cent additional was provided for prior months. Provision of 63 per cent compares with 45.53 per cent in 1940 and with 15.2 per cent in 1939.

Net sales of $2,488,079 in the fourth quarter of 1941 compared with $1,501,464 in the like 1940 period and with $2,276,426 in the third quarter of 1941. Operating profit after depreciation, $891,017 in the fourth quarter of 1941, compared with $448,589 in the corresponding months of 1940 and with $772,178 in the third quarter of 1941.

After non-recurring items and Federal tax provisions, net profit of $321,027 in the fourth quarter of 1941 compared with $178,750 in the 1940 fourth quarter and with $277,057 in the third quarter of 1941, the latter being an adjusted figure giving effect to increased tax provisions.

The fourth quarter operations of the Puget Sound Pulp & Timber Company reflected for the first full quarter the new plant capacity installed in 1941 and the resultant increase in operating efficiency. A comparison of fourth quarter operations in 1941 with 1940 shows: production increased 40 per cent; net sales were 65 per cent higher; profit before tax provisions was up 158 per cent; estimated Federal taxes were 263 per cent higher; and, net profit after tax provisions was 80 per cent greater.

Puget Sound's 1941 Business

● Substantial increase in volume of business in 1941 was required to produce a moderate increase in net profit.

Domestic contract prices remained stationary throughout the year, while manufacturing costs rose more than 15 per cent. Cost of operations in the plant actually were reduced through economies incident to the new manufacturing unit, but cost of logs, the largest single item entering into the cost of pulp, increased steadily through 1941. Cost of logs used in December, 1941, averaged $15 per ton of pulp produced, compared with $13.10 in December, 1940.

An increase of $2,401,358 in net sales produced an increase of $1,250,296 in operating profit, and an increase of $1,662,556 in profit after non-recurring profits and write-offs; but this resulted in only $326,177 gain in net profit after tax provisions, since estimated Federal taxes increased $1,336,379.

In the fourth quarter, provision for Federal normal income taxes and excess

Operating Summary

1941 Compared with 1940

Figures which follow compare operations at the Bellingham mill, enlarged in 1941, with combined operations at the Bellingham and Anacortes mills up to November 15th and thereafter at Bellingham only to the end of 1940. Independently audited figures for 1940 are compared with preliminary figures for 1941.

	1941	1940	Increase in 1941
Production, tons	143,038	128,136	14,902
Average daily production, tons	398	368	30
Sales, tons	146,023	126,938	19,085
Net sales	$8,423,941	$6,022,583	$2,401,358
Operating profit before depreciation	3,556,683	2,096,072	1,460,611
Depreciation	431,479	221,164	210,315
Operating profit after depreciation	3,125,204	1,874,908	1,250,296
Non-recurring profits and write-offs, net	2,095*	414,355*	412,260*
Profit before provision for Federal taxes	3,123,109	1,460,553	1,662,556
Provision for Federal taxes	2,001,379	665,000	1,336,379
Net profit	1,121,730	795,553	326,177
Net profit per share:			
Preferred Stock	$20.00	$12.09	$7.91
Common Stock	3.22	2.40	.82
December 31st			
Current assets	$3,017,464	$1,812,775	$1,204,689
Current liabilities	2,607,568	923,601	1,683,967
Current ratio	1.16 to 1	1.96 to 1	.80 to 1*
Working capital	409,896	889,174	479,278*

*Loss or decrease.

Comparison of 4th Quarter Operations

	4th Quarter 1941	4th Quarter 1940	Increase in 4th Quarter	3rd Quarter 1941	Increase in 4th Quarter
Production, tons	41,055	29,250	11,805	38,508	2,547
Average daily production, tons	461	329	132	433	28
Sales, tons	41,986	28,567	13,419	39,569	2,417
Net sales	$2,488,079	$1,501,464	$986,615	$2,276,426	$211,653
Operating profit before depreciation	1,018,457	504,145	514,312	898,548	119,909
Depreciation	127,440	55,556	71,884	126,370	1,070
Operating profit after depreciation	891,017	448,589	442,428	772,178	118,839
Prorata proportion of non-recurring profits and write-offs, net	524*	103,589*	103,065*	524*	.....
Profit before provision for Federal taxes	890,493	345,000	545,493	771,654	118,839
Provision for Federal taxes	569,466	166,250	403,216	494,597	74,869
Net profit	321,027	178,750	142,277	277,057	43,970
Net profit per share:					
Preferred Stock	$5.73	$3.15	$2.58	$4.92	$.81
Common Stock	.93	.50	.43	.80	.13

*Loss or decrease.

profits taxes was increased from 60 per cent to 63 per cent, and an additional 3 per cent provided for prior months. Provision of 63 per cent for 1941 compares with 45.53 per cent for 1940.

Decrease in working capital as at December 31, 1941, compared with a year earlier was caused by employment of funds in the purchase of timber properties, as reported to stockholders December 22, 1941, and prepayment of a construction fund note, due in 1943, for $175,000.

Total dividends paid in 1941 amounted to $720,731, of which preferred stockholders received $67,663 and common stockholders $653,068. After payment of these dividends, profits retained in the business amounted to $401,000.

Net profit applicable to dividends, earned in 1941, covered the preferred dividend requirement 16.6 times; the amount remaining after payment of preferred dividends covered common dividend payments 1.6 times.

A detailed summary of operations in 1941, with comparative figures for 1940, is given elsewhere in this report.

Race Between Supply and Demand

● Wood pulp supply and demand ran a race in 1941. In the early months, says the Puget Sound Pulp & Timber Company's report to stockholders, the demand moved far into the lead, causing heavy withdrawals from inventories. In the closing months of the year supply appeared to be gaining ground; there was less depletion of reserve stocks. But throughout the entire year demand continued well ahead of new supply available from domestic production and imports.

Based upon data presently available, total consumption of all grades of wood pulp in 1941 is estimated to be fairly close to 11,000,000 tons. This includes groundwood, in which grade there was no tight situation. However, newsprint scarcity was threatened around the year-end, due to a shift of machinery to paperboard production for military purposes.

Apparent consumption of all chemical grades of pulp approximated 8,960,000 tons in 1941, for a gain of about 1,000,000 tons over 1940.

Domestic production of about 8,060,000 tons of chemical grades in 1941 was also about 1,000,000 tons higher than the 1940 output. Excess of imports over exports in 1941 provided about 640,000 tons additional for domestic use.

Domestic production plus import balance of chemical grades, aggregating approximately 8,700,000 tons in 1941, fell about 260,000 tons short of demand, which amount was drawn from reserve supplies. Depletion of reserves in 1940 was estimated at 368,000 tons. Hence new supply available for domestic consumption, consisting of production and import balance, came about 108,000 tons closer to satisfying demand in 1941 than the result achieved the year before.

The race between supply and demand is best observed on a monthly comparative basis. For this purpose figures are available from April through September, applicable to paper grades of sulphite and sulphate pulps. These are probably the latest comparative figures of this character which will be available for some time since government publication of import-export figures has been discontinued. Examination of the accompanying chart will reveal these trends:

1941 INDEX NOW AVAILABLE

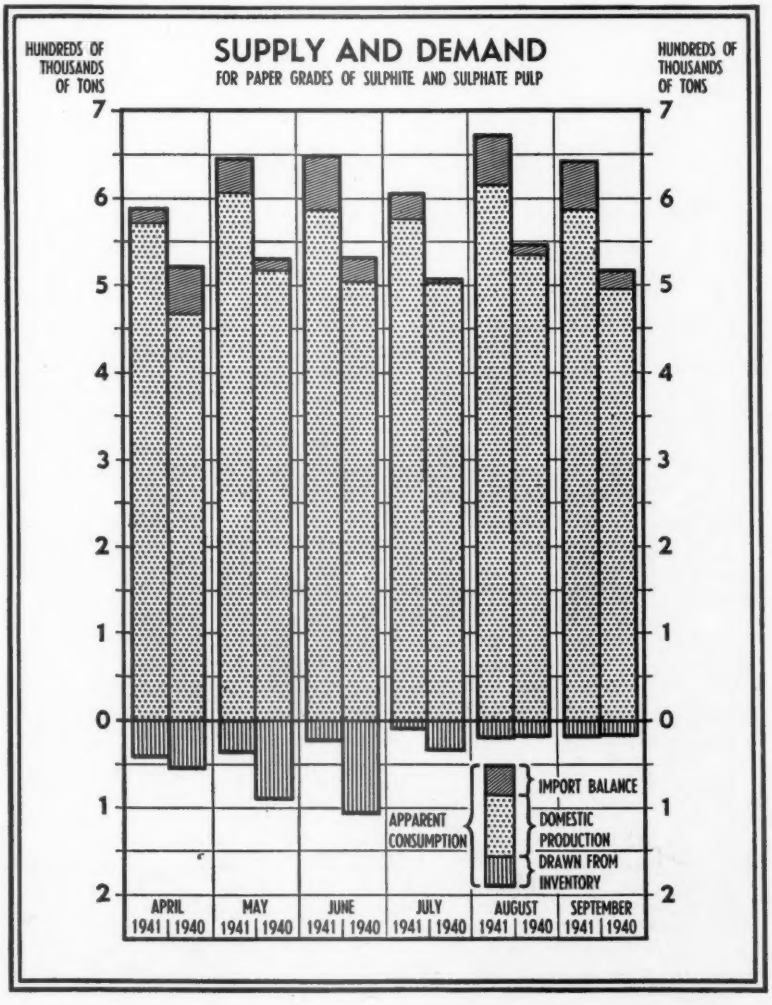
An index to Volume 15 (1941) of PACIFIC PULP & PAPER INDUSTRY is now available without charge to all subscribers and advertisers who desire copies.

Included in the index are all technical articles, mill descriptions, general interest articles and major news stories appearing during 1941. A separate index lists the articles, statistical tables and graphs in the 1941 Annual Review & Statistical Number published in May, 1941.

Withdrawals from inventory, lessening as the year progressed, and generally less than in the comparable months of 1940; domestic production, consistently ahead of 1940, by a monthly average of 84,000 tons; import balance higher than in 1940 in all months except April.

It is generally believed that demand for wood pulp in 1941 was increased somewhat by fears of a paper shortage and consequent forward buying. Superimposed on this were both direct and indirect demands for paper and paper products for defense purposes; also a stoppage of silk imports, coupled with larger quantities of pulp required for plastics, cellulose acetate and nitrate, creating demand for rayon and cellulose grades in excess of combined domestic and Canadian producing capacity.

Considering the speed with which conditions change, and the unpredictable maximum of defense demands, any forecast of 1942 at this time is largely guesswork. However, the industry's record in 1941, and the fact that supply appeared to be reducing the gap existing between it and demand in the latter part of the year, provides the basis for anticipating that a balance between supply and demand may be reached before inventory reserves are entirely depleted.



Logging Waste and Its Potential Value in Pulp Manufacture

by BROR L. GRONDAL*

ONE who even glaces casually at the cut-over areas in the wake of modern logging operations in western Washington is impressed by the amount of organic material that is left on the ground and unutilized. This debris constitutes such an extreme fire hazard that under the laws of the State of Washington, loggers are compelled to burn all logging slash. Only too often, slash fires are so hot that from the standpoint of tree growth, the productive capacity of the soil is greatly reduced and regeneration of the forest is greatly impeded. Moreover, the burning of the slash seldom "fire-proofs" the area, and recurrent fires result in the formation of desert areas upon which it is extremely difficult to reestablish the forest.

The economic loss to industry due to the cost of slash burning and patrolling such burned over areas afterwards, as well as the actual loss in the material that is burned, is so high that it constitutes one of the most serious problems that our forest products industries and our state faces.

State Financed Study

● In July, 1940, the members of the Washington State Planning Council, with Mr. B. H. Kizer as chairman and Mr. P. Hetherton as executive officer, recommended to Governor Arthur B. Langlie that from a fund established by the legislature to finance studies initiated under the Planning Council, the sum of $3,000 be appropriated for a study of the unutilized logging slash, to serve as a basis for further studies designed to find rational means for salvaging this material. It was further recommended that this study be conducted by the staff of the College of Forestry of the University of Washington, under the general direction of dean Hugo Winkenwerder. This recommendation was approved by Governor Langlie, and the field work was immediately initiated with the writer as project supervisor, assisted by assistant professors of Forestry Dr. Frederick F. Wangaard and Mr. Harry Schrader, and by Mr. William I. West, a graduate of the College of Forestry.

Professor BROR L. GRONDAL, Spoke on Utilizing Logging Waste

A brief preliminary survey indicated the desirability of selecting ¼-acre plots in typical logging operations, so located that they would reflect as accurately as possible the average condition of the logging slash in each area studied. On these areas, every individual piece of material that could be utilized under hypothetically possible economic conditions was inspected. The size of each piece was tallied after careful measurement, and the defects, such as the presence of decay, the size and number of knots, falling breaks and other pertinent data were recorded. All pieces were segregated by species.

The plots that were studied were located in four general areas in western Washington. Plots 1, 2 and 3 were chosen in the logging operations of a lumber manufacturing company where logging was conducted in the foothills of the Cascade Mountains at a general elevation of about 2,000 feet above sea level. This company sold no logs in the open market, other than a limited number of peeler logs for plywood manufacture.

Plots 4, 5, 6, 7, 8, 9, 10 and 11 were located in the logging operations of a lumber company in the Columbia River area at elevations varying from 500 feet to 2,150 feet above sea level. This company sold peeler logs for plywood manufacture and varying quantities of logs for pulp manufacture, but the major portion of the logs produced was sawed in the mill operated by the company.

Plots 12, 13, 14, 15 and 16 were chosen in a logging operation located in the foothills of the Cascade Mountains at a general elevation of 2700 feet above sea level. This company sold peeler logs for plywood manufacture, logs for pulp manufacture and a limited amount of logs in the open market, but the major portion of the logs was sawed in the mill operated by the company.

Plots 17, 18, 19 and 20 were chosen in logging operations conducted by an independent logger in the Grays Harbor region. All logs produced were sold in the open market for lumber, plywood and pulp manufacture, and plots 18 and 19, on land owned by the Federal government, were subject to a heavy penalty scale.

General results of the study form the subject of a comprehensive report that will soon become available in published form, and in this article, consideration is being given only to data that are pertinent to the pulp industry.

The writer wishes to acknowledge the assistance and cooperation of the logging and lumber companies in whose holdings these plots were chosen. All necessary records were made available to the field men to facilitate the study. It was a noteworthy fact that these concerns were anxious to reduce to the lowest possible minimum the amount of unutilized material. The causes for the loss of the large amount of material left on the ground after logging are beyond the scope of this article, but are discussed in the forthcoming publication. However, it may be noted, in passing, that the amount has a tendency to increase as wages increase, for the price of logs seems to reach a ceiling which wages do not.

In the appended table, the pulpwood listed as left on the ground consisted of material classified as

*Professor of Forest Products, College of Forestry, University of Washington, Seattle. Presented at the dinner meeting sponsored by the Pacific Section of TAPPI and held at the Everett Golf & Country Club, Everett, Washington, February 3, 1942.

"If there is so much pulpwood left on the ground to burn or rot, why isn't it used at the present time?" is the question propounded by Professor Grondal.

The answer is simple, he states. The loggers have no market for it. Pulp mills have demanded lumber logs. Pulpwood logs have always been sold on a buyer's market. Demand for pulp species has been poor with pulp industry usually the only bidder.

Situation rapidly changing . . . proportion of Douglas fir to hemlock in remaining stands is lessening . . . lumber industry awaking to need for expanding market for hemlock lumber and plywood . . . As practice spreads more buyers of hemlock will bid up prices of high grade hemlock logs and pulp industry will have to show interest in lower grades that are equally good for pulp and can be obtained at lower prices . . . unutilized material uncovered by this study will therefore become important to pulp manufacturers.

Handling unutilized material is economic problem . . . study points to partial preparation of wood in the field before shipment to the pulp mills. Further, present application of board foot scale to small logs fails to indicate volume of wood available for pulping. Cleanup, here suggested, is already beginning in some operations.

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sound or with very small localized amounts of rot, relatively smooth or free from knots, with a minimum diameter of 10 inches and a minimum length of 8 feet, or chunks no smaller than would correspond to these dimensions. Only the pulpwood species, western hemlock (Tsuga heterophylla), silver firs (Abies spp.) and Sitka spruce (Picea sitchensis) were allowed in this classification.

The column headed "additional pulpwood" includes material at least 4 feet long and 5 inches in diameter or chunks of equivalent size, relatively smooth or free from knots, but containing as much as 50 per cent of rot if this is so localized that it can be cut out readily. In addition to the pulpwood species listed previously, this classification includes Douglas fir (Pseudotsuga taxifolia) and western white pine (Pinus monticola).

Variance In Measurements

● It will be noted that there is apparently no concordance between the volume of pulpwood as expressed in cubic feet and in board feet. This is due to use—one might say misuse—of the Scribner decimal

Unutilized material on one of the twenty ¼-acre plots that were studied.

Logs and stumps are drawn to scale in this chart which represents one of the plots studied. Every piece of material was numbered and completely described in the field notes.

C log rule in scaling the pulpwood. The log rule indicates merely the amount of boards one-inch thick that could be cut from the material, after making deductions for defect. The number of cubic feet, as listed, reflects with accuracy the amount of material that is actually on the ground.

A study of this table indicates that the method of logging—by tractors, skyline or highlead—bears little relationship to the amount of material that is left. It was noted, however, that in one area where tractors were operating that clean-up operations were more efficiently conducted than would have been possible by any other method of yarding.

It is not possible, in this article, to discuss the effect of length of haul or transportation costs on the amount of material left on the ground, but in only one instance did this factor come prominently into the picture.

The question now arises: "If there is so much pulpwood left on the ground to burn or rot, why isn't it used at the present time?" The answer is, of course, simple. The loggers find no market for it. Pulp mills have demanded lumber logs. Pulpwood logs have always been sold on a buyer's market. The demand for hemlock, silver fir and spruce lumber has been poor, and therefore the pulp industry has been present at a log auction as the only bidder.

The time is rapidly approaching when this will no longer be the case. As the proportion of Douglas fir in the remaining timber stands, vast though they may be, is lessening sharply, the lumber industry is becoming alive to the necessity of expanding the markets for hemlock and the various firs of the genus Abies. Several large mills have already increased their cut of hemlock to a point where a major proportion of the output consists of lumber of these species. As this practice spreads, there will be more buyers at the auction, and as a result, the pulp industry will become more deeply interested in a grade of hemlock that is just as good for pulp manufacture but which can be obtained at a lower price. The unutilized material uncovered by this study will therefore become important to pulp manufacturers.

There are some difficulties that must be overcome before this material can be profitably gathered. The wood room of the typical existing pulp mill has not been designed to handle material of the dimensions that are considered in this study. Moreover, the large amount of waste that will accumulate when this material is cleaned up would present a difficult disposal problem at the pulp mill. Transportation costs and handling costs also would be too high. The answer to the problem resolves itself into the patent fact that this pulpwood must be further refined in the field, **before** it is shipped to the pulp mill.

The total amount of unutilized material that was left on the ground after logging has not been included in the table; for in this short article it would not be possible to present a proper discussion that would clarify the data so that these could be properly evaluated. In passing, however, it may be remarked that 92 per cent of all the unutilized material was found on 13 plots, and as scaled by the Scribner decimal C rule, this amounted to an average of 31,929 board feet per acre. This article is concerned only with the **pulpwood** that was left, but the writer wishes to emphasize that a method of bulk utilization that has not yet been developed, but which would carry a large portion of the overhead expense that would be involved in yarding the pulpwood, would make the use of this pulpwood standard practice in the pulp mills of this region.

A study is now being made of a proposed method of salvaging the unutilized pulpwood that would involve the yarding of the waste to a portable pulp mill "wood room." Material will be yarded to this device, which will be mounted on a typical donkey sled, and which it is proposed will be Diesel-engine powered. Equipment will include a cut-off saw, hydraulic and mechanical splitter, disc barkers and minor equipment. Most of the pulpwood will be produced in 24-inch lengths, which will be loaded into gondola cars or truck bodies by a power driven conveyor. Some of this wood might be cleaned up further at the pulp mill in drum barkers, and this might call for a certain amount of sorting at the pulp mill. But such pulpwood could be produced at a fair price—at a price that will tend to stabilize the prices that will be demanded for pulpwood logs in the future.

In conclusion, the writer wishes to emphasize that there is a huge supply of pulpwood of the best species

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that remains as a backlog for a much larger pulp industry than we now have in this region. However, a large percentage of this timber is also suitable for the production of lumber and plywood. Pulp manufacturing concerns that own timberlands will find a good future market at the sawmills for the better grades of logs—they will be too good for pulp. Consequently, in many operations, the clean-up that is suggested by this article is already beginning, being conducted as a part of the standard logging operation.

West Linn Credit Union Reports Good Year

● Crown Federal Credit Union, made up of employees of Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, West Linn, Oregon, held its annual meeting January 16th. A six per cent dividend was declared to the investors and officers were elected for the ensuing year. William Wright, Jr., representing the federal government, department of agriculture, under whose rules all federal credit unions operate, was the principal speaker.

Officers elected for 1942 include the following: R. P. Chambers, president; Paul G. Laudien, vice president; John Criswell, treasurer-clerk; Herman Buse, Clarence Seheer and F. O. Cooke. They also constitute the board of directors.

Credit committee: W. L. Wilson, chairman; William Schultze, secretary; Ferd Phipps, Mark Lowry, M. A. Wilson. Supervisory committee: Joe Otterson, chairman; Alton Morris, secretary; and F. J. Bunnell.

This annual meeting ended the second year of operation of the credit union. The savings of the members, up to January 1st, amounts to a little over $32,000.

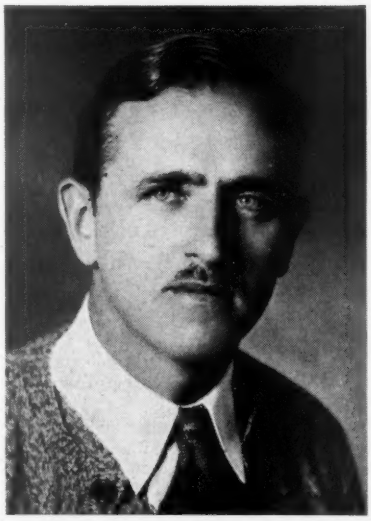
Fraser Named Coos Bay Pulp Superintendent

● James D. Fraser, acting superintendent of the Coos Bay Pulp Corporation's unbleached sulphite pulp mill at Empire, Oregon, since last August, was named general superintendent in December, according to an announcement by C. Wylie Smith, general manager. The Coos Bay mill, a wholly owned subsidiary of the Scott Paper Company of Chester, Pennsylvania, produces around 80 tons of unbleached sulphite pulp per day for the parent company.

Mr. Fraser is an experienced sulphite operator. A graduate of the University of Dublin, his first experience in the industry was in the sulphite mill of the Washington Pulp & Paper Corporation of Port Angeles, Washington. When the Grays Harbor Pulp & Paper Company was built in 1928 (now a part of Rayonier Incorporated), Mr. Fraser became associated with the organization and remained until December, 1935. At that time he resigned to join the Pulp Division of the Weyerhaeuser Timber Company as one of two operating superintendents of the company's unbleached sulphite pulp mill then under construction at Everett, Washington.

The Everett mill began operations in April, 1936, and Mr. Fraser later became superintendent of the entire operation, staying in that capacity until his resignation in December, 1940. Mrs. Fraser and their three children are still living in Everett but will join Mr. Fraser at Empire as soon as a suitable house becomes available.

Mr. Fraser is a member of the American Pulp & Paper Mill Superintendents Association.



JAMES D. FRASER, General Superintendent, Coos Bay Pulp Corporation

Plot Number and District. Timber Type.	Elevation, feet above sea level	Method of Logging	Volume of Original stand ft.B.M. per acre	Pulpwood — cubic feet per acre	Pulpwood — board feet per acre	Additional Pulpwood cubic feet per acre
1. Cascade—small to medium red fir and hemlock—site II to III	2,350	Highlead	74,247	1,792	10,640	6,464
2. Cascade—yellow fir and large hemlock—site II	2,000	Skyline	160,112	1,924	11,552	2,168
3. Cascade—yellow fir and large hemlock—site II	2,000	Skyline	160,112	1,864	10,760	5,608
4. Columbia River—red fir—site III	500	Skyline	33,600	272	1,280	1,740
5. Columbia River—red fir—site III	500	Skyline	33,600	0	0	5,836
6. Columbia River—red fir—site II-III	550	Tractor	58,300	0	0	804
7. Columbia River—yellow fir—site II	1,400	Skyline and swinging	173,000	392	1,880	5,860
8. Columbia River—yellow fir—site II	1,450	Skyline	188,000	836	4,120	2,260
9. Columbia River—yellow fir—site II	2,150	Highlead and swinging	80,000	824	4,478	528
10. Columbia River—yellow fir—site II	1,800	Skyline	90,000	644	3,160	164
11. Columbia River—yellow fir and cedar—site II	1,100	Skyline	106,000	0	0	432
12 Cascade—yellow fir—site II	2,650	Skyline	69,937*	1,624	9,960	1,164
13. Cascade—red fir—site III	2,750	Tractor	69,937*	2,996	19,880	240
14. Cascade—yellow fir—site II	2,600	Skyline (Logged previous year)	69,937*	1,284	4,684	1,264
15. Cascade—yellow fir—site II	2,700	Skyline	69,937*	1,248	8,320	2,220
16. Cascade—hemlock-silver fir—site II-III	2,500	Skyline (Logged previous year)	61,390	40	200	588
17. Grays Harbor—cedar-hemlock—site III	500	Highlead and swinging	20,075	176	1,000	684
18. Grays Harbor—yellow fir-spruce—site III	300	Highlead and swinging	63,850	1,340	8,160	980
19. Grays Harbor—yellow fir-spruce—site III	300	Highlead and swinging	63,850	256	1,280	440
20. Grays Harbor—spruce-cedar	300	Highlead and swinging	51,350	340	1,760	596

*General cruise area.

Fibrous Water Hose

A report of an experimental study of the possible use of high strength cellulose sausage casing as an emergency gravity water hose for fighting forest fires.

by GLENN C. CHARLTON*

THE purpose of this study is to develop a light hose for conveying water, by gravity, to points where it can be used in fire suppression work. In order to be practical, the hose must be strong enough to withstand the pressure developed when the hose is run over uneven ground and across shallow depressions or over logs and other obstacles normally encountered when laying out a gravity system; light enough to enable one man to carry several thousand feet over rugged mountain terrain; durable enough to outlast the life of an ordinary fire; and so packaged that it can be laid out at a high rate of speed.

The Visking Corporation of Chicago developed a casing under the trade name of "Fibrous Sausage Casing" which they use as a covering for all kinds of sausages. It is a transparent casing made from sheets of fibrous and chemical cellulose that are glued together with a waterproof glue. To date, it is manufactured in three sizes that are approximately one and one-half, two and two and one-half inches in diameter. All sizes were made from the same weight and grade of paper. It comes in random lengths that vary from fifty to five hundred feet. The company has stated that they can develop a process that would produce five hundred foot lengths and by gluing these together, they could give us a continuous casing of any length desired.

The fibrous casing weighs eleven pounds per one thousand feet, or fifty-seven and one-half pounds per mile. The one and one-half inch cotton jacketed rubber lined hose commonly used weighs 320 pounds per thousand feet, or 1,675 pounds per mile.

Low Cost

● The fibrous casing costs $.00648 per foot or $34.21 per mile. The cotton jacketed rubber lined hose costs about $.202 per foot or $1,073.28 per mile.

The experiments with the hose began with the pressure testing of some five-foot sample lengths furnished by the manufacturing company. The test on the one and one-half inch casing showed that it had a breaking strength of about twelve pounds per square inch. The breaking strength of the two larger sizes was much lower and further experiments were not carried on with them. The next step was to purchase five hundred feet of the casing and lay it out under actual field conditions. The site selected made it possible to secure a sixty foot fall in four hundred feet. The ground cover consisted of slashing left from a cutting of cedar poles from which the limbs had been lopped, but the slash had not been burned, and which offered unusual opportunity for puncturing the hose. Logs and other obstacles were crossed where encountered and no special attention was paid as to where the hose fell on the ground. At the end of the four hundred foot length, the hose was strung uphill for one hundred feet for a total vertical raise of twenty-six feet.

No Break in Three Weeks

● All the water that could be forced into the hose through a regular sump bag was then turned in. The hose was checked daily for three days and every week thereafter for four weeks. At the end of twenty-one days, there was no apparent deterioration, but on the twenty-eighth day it had ruptured at the low point. The break was repaired, but numerous small holes were found throughout the entire section that was under pressure, and new ruptures occurred when an attempt was made to raise the water to the original height of twenty-six feet.

Additional hose was purchased and numerous tests were made during the summer to determine its breaking strength. It was found that rupture occurred when an elevation of twenty-eight to twenty-nine feet, above the low point, was reached. When the hose was stretched between two logs, the weight of the water combined with the internal pressure lowers the breaking pressure in proportion to the distance the hose is suspended above the ground. Very little trouble was experienced with puncture due to sharp sticks or rock and with ordinary care this trouble can be practically eliminated. It was also found, that, when the hose was strung over very uneven ground across logs and other obstacles, it is necessary to leave about one foot of slack for every four feet of horizontal distance in order to compensate for the extra length required when the water filled hose sinks into all the depressions. On fairly smooth slopes it is not necessary to leave additional slack.

A final test was made this Fall with casing that had been in storage for four months for the purpose of determining the loss of strength due to deterioration in the four months period, to determine the affect of friction on eight hundred feet of hose, and to measure the volume of water, in gallons per minute, that could be forced through the hose under a given set of conditions. The test was made on ground where conditions were more severe than those that will ordinarily be encountered when the hose is used on fire.

The route followed by the hose line was divided into stations. The distance and difference in elevation was determined for each station.

Eight hundred feet of hose was used in this experiment. The distance between stations represents the shortest distance between them, not the actual length of hose used.

The difference in elevation between the outlet and intake was 32.9 feet. The difference in elevation from the low point to outlet was 30.6 feet.

The difference in elevation between the outlet and low point in the line of 30.6 feet is about 2 feet more than that which was received on former tests and indicates that the hose had not deteriorated in the four months it was in storage. Friction was also too low to make a noticeable difference as the hose ran flat down the hill to a point approximately level with the outlet. After the hose was tested for the breaking strength it was leveled off so the outlet was 26 feet above the low point and all the water that the sump would hold was turned in. The sump bag was suspended so there was a two foot head of water above the actual intake of the hose. The rate of flow was checked at the outlet several times and found to be 17.6 gallons per minute.

As the hose is received in random lengths and also because it is sometimes necessary to repair a break, a light coupling made of 12 gauge sheet metal was designed. It consists of a straight tube slightly smaller in diameter than the hose and has two corrugations on each end. A "Y" connection was also designed so that water could be diverted in two directions if necessary. The amount of water in each branch can be regulated by tying a string around the hose about one foot from the connections and tightened until the desired flow is obtained. The hose is fastened to the connections by slipping the ends over the tube and tying it with a small but strong cord. A suitable reel for stringing the hose can be made similar to the reel used for stringing emergency telephone wire. A more suitable reel, however, is one made similar to the front forks on a bicycle with a hand hold fastened on top. This type of reel gives the man stringing the hose a better chance to place in the best locations and makes it easier to put it under logs of over the top of other obstacles. Since the 1,000-foot rolls weigh 11 pounds and are only 12 inches in diameter a large or strong reel is not required.

The storage of the hose does not require special facilities. Instructions from the company are to store in a cool place where it does not get wet but at the same

Station	to	Station	Distance	Difference in Elevation
A		B	79 feet	—40.0
B		C	66 "	—22.8
C		D	59 "	—0.7
D		E	50 "	+16.5
E		F	53 "	—1.5
F		G	66 "	—15.0
G		H	132 "	+4.0
H		I	50 "	2.6
I		J	50 "	24.0

*District Ranger, United States Forest Service, Detroit, Oregon. Presented at the meeting of the Western Forestry and Conservation Association, Portland, Oregon, December 10-13, 1941.

time does not dry out. Storage in a basement away from steam pipes is considered satisfactory. Hose used on fire can be drained, rolled and moved to a new location a number of times provided that the period between use is not more than a day or two. It does, however, deteriorate rapidly when subject to wet and dry conditions and salvage is not recommended when the date for future use is uncertain.

An inquiry sent the Visking Corporation in regard to the development of a stronger casing resulted in the manufacture of a slightly smaller and heavier casing. This casing withstood the pressure of a vertical column of water 39 ft. high, it will weigh about one-third more but since only 100 feet were manufactured its cost could not be determined. The Visking Corporation feels that an order of 100,000 feet would be necessary in order to allow them to tool up to make the heavier casing.

The hose does not have sufficient strength to permit use on any kind of a pump system. For gravity systems it can be used to replace the regular hose wherever the outlet is not more than 28 feet vertical above low point. If pressure is needed the light hose can be run into a sump and a power pumper with a short length of regular hose used. It can also be used to carry water to a location above the point of use and connected to the regular hose for developing pressure for gravity mop up. Its use to carry water close to the point where mop up is being done with pump cans will frequently eliminate the long pack often necessary under present conditions. Another planned use is to have special smoke chasers carry it out to small fires in well watered country to aid in speeding up the mop up.

The results of experiments carried on at the District Ranger Station during the past summer may be helpful to those planning to use the hose on fires.

Accessories Needed

● The material needed are a sump bag with the male end of the connection from regular hose fitted into the lower corner, a female connection of the type used for making emergency repair of regular hose in the field and which has a corrugated projection about three inches long, light sleeves, Y's and a ball of small but strong twine.

Although one man can string the hose at a high rate of speed two men can more than double the length strung out in any given time. The first man starts stringing the hose at the point of intake while the second man places the sump bag and makes the necessary connections. When the first man reaches the end of the first length he stops and inverts a sleeve in the second joint and continues to string out more hose. This process is continued until the desired point is reached. A little practice will enable the man stringing the hose to leave the proper amount of slack.

The second man places the sump bag and connects the hose. He regulates the flow of water to about 5 gallons per minute and follows through to the end of the first section. He straightens out bad kinks and may move the hose a foot or two for better location. He then connects the first and second joints and repeats the process. When the water reaches the desired point this man returns to the intake and gradually increases the flow of water to all that can be forced through the outlet of the sump bag. Two men should carry their own supply of hose and connections and string about 1½ miles per hour over ordinary mountain terrain.

Any one desiring to purchase the hose should order fibrous casing No. 1 and address the letter to Mr. Gustav Freund, Visking Corporation, 6733 West 65th Street, Chicago, Illinois.

Bellingham Credit Union Pays Dividend, Elects Officers

● On January 19th, the first annual meeting of the Puget Sound Pulp & Timber Co. Credit Union was held with the evening given over to a business meeting, followed by a social hour provided by wives of members at which a buffet supper was served.

Although only in business for ten months, the officers of the credit union were able to announce a dividend, in addition to a financial report which showed a large portion of the Puget Sound Pulp family as members.

Mr. Andrew Loft, executive of the Puget Sound Power and Light Company, and who is a member of the executive board of the State Credit Union Association outlined the work of the organization. He urged the popularizing of the credit union among the wives of members, observing that wives spent the greater share of the American wage dollar.

Officers for the year 1942 were chosen with the following being elected; Ralph Cameron, president; Sydney Gibson, vice president; T. D. Hutchison, secretary-treasurer. Directors: Ralph Cameron, Sydney Gibson, T. D. Hutchison, Sidney Collier, J. L. Smith, J. S. Lewis, I. E. McDougle, Arthur Isaacson, and Melvin Bakkom.

Photos by U. S. Forest Service

On the left is the sump bag and the special fittings of 12-gauge sheet metal employed in connecting lengths of the fibrous water hose. The 1,000-foot coil of hose weighs 11 lbs. as compared with 320 lbs. for 1,000 feet of 1½-inch cotton jacketed rubber lined hose.

In service the fibrous water hose can be laid over rough ground as long as sufficient slack is left to permit adaptation to the surface and avoid stress.

Fibreboard at Port Angeles Awards Service Pins

● N. M. Brisbois, vice president in charge of production for Fibreboard Products Inc., presented service pins to a group of Fibreboard employes at Port Angeles, Wash., at a dinner meeting the night of January 15.

Fifteen-year pins went to Henry H. Waldron, Edward Worth, H. O. Bigelow, Wano Hendrickson and C. R. Coryell; a ten-year emblem to George M. Basom and five-year pins to Otto Iredale, Sergeant R. J. Cummings (Fort Worden), George King Jr., Truman L. Lemmon, Guy C. Jervis, C. H. Hamilton and T. F. Brewner.

Suggestion prize awards for the first two quarters of the Fibreboard fiscal year were issued as follows: First quarter, George Benson, first and third prizes; U. L. McDonald, second; Truman L. Lemmon, fourth, and H. B. Pollard, fifth. Second quarter, Paul Wait, first; I. E. Schisel, second; Al Goerg, third; E. McElravy, fourth, and E. H. Preece, fifth.

Nelson Hartnagel, chief chemist, spoke on the combatting of incendiary bombs and other civil defense subjects, and demonstrated a magnesium bomb.

Gerald Green Married In Seattle

● At a wedding ceremony in Seattle on February 10th, Miss Kathryn McIllraith, daughter of Mr. and Mrs. Herbert McIllraith of that city, became the bride of Mr. Gerald F. Green, control chemist for the Puget Sound Pulp & Timber Co. of Bellingham. The young couple honeymooned in Western Canada. They will make their home in Bellingham.

John Hoffman Called To Active Duty

● John G. Hoffman, Jr., of the firm Drew and Hoffman, contracting engineers, Portland, Oregon, has received preliminary orders to report to Fort Benning Georgia, for military service. He is a first lieutenant, chemical warfare reserve, having taken four years of military training at Oregon State College and R. O. T. C. training at Edgewood Arsenal, Maryland. Since receiving these orders on January 17th he has held himself in readiness to leave at an instant's notice.

On January 26th he was married to Miss Audrey Nelson of Portland.

Mr. Hoffman received a Bachelor of Science degree in chemical engineering from Oregon State College in 1935.

RAYON IN NATIONAL DEFENSE is the title of this exhibit by the INDUSTRIAL RAYON CORPORATION of Cleveland, Ohio, appearing in the window of the National City Bank of that city.

Reading from left to right the items are: Firestone LOW LOADER TIRE developed for use on Bell Airacobras, contains an all-rayon cord which, because of its greater resistance to heat either due to climatic conditions or friction, gives greater mileage. NAVAL PILOT'S SUIT designed originally as a flying suit. This model, with slight changes, has been adopted by the Army Air Corps as a PARACHUTIST'S JUMP SUIT. The fabric is 65% rayon and 35% cotton. Light weight, durability, warmth and resistance to abrasion were the reasons for its selection. Directly below is a NURSE'S COAT lined with rayon. Red braid is rayon, too.

HAT CORDS, rayon yarn forms the covering for the cords, acorns and keepers. Color provides identification. ARMY HELMET, the new type, two piece helmet employs rayon in the braided straps because of its resistance to absorption of oil, dirt and perspiration, and for its smoothness and appearance.

CABLES, in these cables rayon is used as a braided covering over the conductors. In addition to being an excellent non-conductor rayon offers an additional advantage in that yarn of a given weight has a smaller diameter than other fibers, consequently occupies less space in the cable where space is at a great premium. DIVISION INSIGNIA and CHEVRONS are all rayon. CHANNEL TREAD TIRE developed for use on fast pursuit planes. Tires of all-rayon cord are being supplied for many types of army vehicles as well as for aircraft. At the right, below the all-rayon American Flag, is a spool of rayon cord as used in tires.

Crown Zellerbach Los Angeles Employees Receive Service Pins

THE service pin dinner of the Crown Willamette Paper Company's Division of Crown Zellerbach Corporation was held in Los Angeles at Carl's View Park restaurant on Friday, January 9th.

Twenty-three service pins were awarded this year, fourteen of these being five-year awards, two thirty-five year awards, with a generous scattering of 10, 15 and 20-year "stripes." At the present time, 61 per cent of the employees of the Los Angeles branch are pin holders.

W. R. McHaffie, resident manager of the branch, was joined by Albert Bankus and J. Y. Baruh, vice presidents of Crown Zellerbach Corporation at the head table. Mr. Bankus was principal speaker while Mr. Baruh personally awarded the pins.

Guests included Walter Voltz, Charles Hulse and Al Bojanower of Western Waxed Paper Company, Bill Charbonneau, Leonard Hagstrom and Mary McBride of Silklin Paper Corporation and Tom Rhodes of Pacific Pulp & Paper Industry.

Ninety-seven persons seated themselves at dinner after Miss Ellen Scott had led the assembly in a pledge of allegiance to our flag and Mr. McHaffie had asked a moment in memory of the late Isadore Zellerbach.

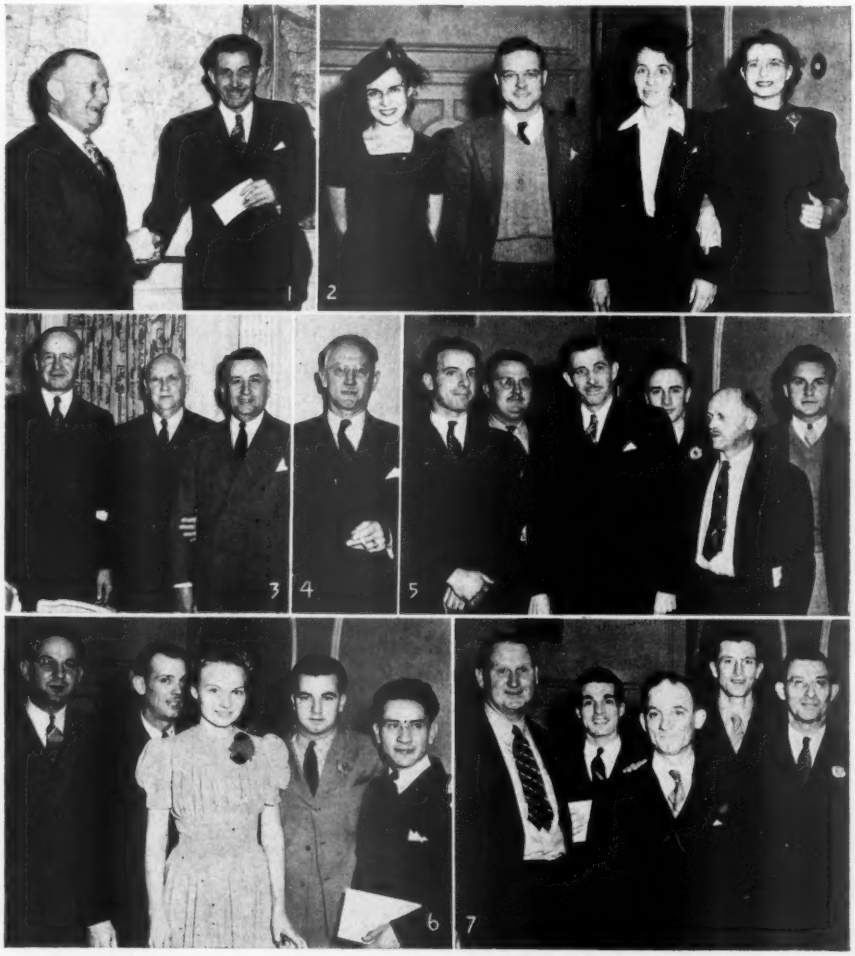
After introducing the guests of the evening, McHaffie congratulated the employees on their good work in meeting the problems that occurred during 1941. He then presented vice-president Baruh.

Mr. Baruh proposed a toast to President Roosevelt, predicted a speedy victory for the United Nations in their war effort. He paid tribute to eight men of the organization who had joined the armed forces of Uncle Sam, touched upon the subject of employee activity in group insurance, praised their 1941 safety record and their anxiety to contribute to various worthy charities. Then he introduced Vice president Bankus.

Mr. Bankus, in charge of production for Crown Zellerbach, stated this was his third service pin dinner attendance in Los Angeles. He first exhibited a recently made sound picture in color, "Hemlock Harvest," which illustrated logging operations in the Neah Bay region of Washington.

Following the motion picture, Mr. Bankus delivered a talk on "Reforestation" as practiced by Crown Zellerbach in its Oregon and Washington timber holdings. He emphasized the long-time value of reforestation and brought forcibly to the employees' attention the vision of their company in providing a permanent timber supply and protecting their jobs. Mr. Bankus located his talk by showing on maps the regions affected by the current reforestation work.

He touched upon the human side of industry, stating that a workman's success depends on three prime factors: (1) opportunity for gainful and permanent employment, (2) application toward one's duties, and (3) equal and impartial opportunities for reward by the employer. He praised his listeners for their progress toward the goal of success. In developing those points, he



Los Angeles recipients of Crown Zellerbach Service Pins . . . No. 1, J. Y. BARUH, Vice President, Crown Zellerbach Corp., presents to ERNEST GREGORY, Plant Superintendent, a pin for 35 years with Crown Willamette and Crown Zellerbach. ALBERT BRUCE was another 35-year pin winner.

No. 2, left to right, FRANCES SIELERT, 5-Year Pin; NEWBEY GREEN, 15-Year Pin; LYDIA TUCKER-BRADY, 10-Year Pin; WINIFRED WATKINS, 5-Year Pin. No. 3, left to right, ALBERT BANKUS, Vice President, Crown Zellerbach Corp., who spoke at the Service Pin Dinner; W. R. McHAFFIE, Resident Manager, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Los Angeles; LESTER REMMERS, Sales Manager of the Crown Willamette Los Angeles division.

No. 4, ARTHUR SIGRIST, who was awarded a 20-Year Pin; No. 5, JOE ENNA, 15-Year Pin; LLOYD EVANS, 5-Year Pin; ERNEST GREGORY, 35-Year Pin; HARRY HARMAN, 5-Year Pin; GEORGE CAMPBELL and JAMES BLOMO, 5-Year Pins.

No. 6, IRVING THOMPSON, ALBERT ALLISON, ESTHER MORRISON, and FRANK PINTO, 5-Year Pins; and, VINCENT CRUZ, 10-Year Pin. Two, JACK RYAN, 20-Year Pin, and FRED DONER, 5-Year Pin, were not caught by the camera.

singled out resident manager McHaffie as a case in point, reminding his audience that soon McHaffie will receive his 50-year pin. He stated that 8,848 employees were on the rolls some few months ago, and of those 4,824 had pins for five or more years of service with the firm, with two holders of pins for more than fifty years.

He stressed the ideal combination of youth and age in a corporation of this kind, pointing out that one balances the other, the resultant being a well-rounded organization.

Mr. Baruh credited the sales department of the local office, represented by Lester Remmers, sales manager, who is also president of the Paper Mill Men's Club of Southern California.

Mr. Remmers' f r i e n d l y "Hi, gang," welcome to the gathered workers was followed by a few words of praise of sales and production employees for their efforts.

Then came the pin awards, at which Mr. Baruh personally called recipients to the head table. He had personal greetings for each and stated that of 150 eligible persons in this local branch, 61 per cent have pins for five or more years of service.

J. J. Herb Married In Bellingham

● J. J. Herb, president of the Pacific Coast Paper Mills of Washington at Bellingham, was married on January 6th to Mrs. Alice Graham of that city.

For their honeymoon the couple went to Palm Springs, returning to Bellingham on February 4th.

Three Companies Adopt Cost of Living Bonuses

● Employees of Crown Zellerbach, Rayonier Incorporated and Fibreboard Products Inc., who are not covered by collective bargaining agreements, will receive "cost of living" adjustment checks monthly in addition to their regular compensation, according to announcements made by officials of these pulp, paper and board companies.

The first checks will be issued about February 20th. The percentage of adjustment is based on the simple average of the index figures of Pacific Coast living costs announced by the U. S. Bureau of Labor Statistics. Measuring stick for the first three months of 1942 will be the increase in the index figures of the bureau for the period between September 15, 1941, and January 15, 1942. Subsequently the amount will be determined quarterly by fluctuations in living costs. The three companies expect the policy will prevail throughout the war's duration, officials indicated.

The minimum adjustment for regular full time employees not covered by collective bargaining agreements will be $5.00 monthly.

Canada Fixes Domestic Pulp Prices

● Canada's Wartime Prices and Trade Board has fixed the selling prices of woodpulp for domestic consumption everywhere in Canada except British Columbia and Alberta at the highest corresponding prices between July 1 and December 1, 1941.

Pulpwood produced and sold for licensed export is not affected by the order, announced February 11.

The ruling covers spruce, balsam, jack pine and poplar pulpwood either in the form of cordwood or logs.

Tore Ahlin Father Of Baby Boy

● On the morning of January 28th a son was born to Mr. and Mrs. Tore Ahlin of Seattle. The youngster weighed 6¼ pounds and was named Arne.

Mr. Ahlin, engineer with A. B. Svenska Flaktfabriken of Stockholm, manufacturers of the Flakt pulp dryer, has supervised the installation of several of the machines in this country and Canada and is associated with Flaktfabriken's American representative, A. H. Lundberg at 3311 First Avenue South, Seattle.

New Vat On Antioch's No. 3 Machine

● The Antioch Division of Fibreboard Products Inc. has added another Beloit Iron Works vat to the No. 3 machine.

The wet end of the No. 3 machine has been entirely electrified with the installation of individual General Electric motors.

All Fibreboard board mills are now operating on a seven-day, 24-hour daily, basis.

Van Arnams Vacation In California

● W. J. Van Arnam, office manager of the Camas mill and Mrs. Van Arnam, secretary to W. R. Barber, technical director of Crown Zellerbach Corporation, with headquarters at Camas, Washington, began a two-week vacation on January 17th. Most of the vacation time was spent in Death Valley, California, where they stayed at Stove Pipe Wells Hotel.

Mr. Van Arnam says they explored Titus canyon, visited the ghost town of Leadfield and spent part of the time sunbathing. On the return trip they visited Reno.

Andy Hawley Joins Insurance Firm

● Andrew D. Hawley, in charge of the Seattle office of the Pacific Coast Supply Company for the past four years, resigned January 31st to become associated with the large Seattle insurance firm of LaBow Haynes Company, Inc., in the Dexter-Horton Building.

In December Mr. Hawley was co-chairman with Walter A. Salmonson of the meeting of the Pacific Coast Division of the American Pulp & Paper Mill Superintendents Association, held in Seattle.

Lebanon Employees 100% On Defense Bonds

● The 143 full time regular employees of the Lebanon, Oregon, mill of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, either owned or were buying Defense Bonds as of February 1st.

This outstanding record was commented upon by J. D. Zellerbach, president of the Crown Zellerbach Corporation in a wire to Paul Middlebrook, resident manager at Lebanon. Said Mr. Zellerbach:

"My congratulations to employees of the Lebanon Division. This is the first division to report 100 per cent of regular employees as purchasers of Defense Savings Bonds. It is my hope that all other divisions will reach the splendid standard set by Lebanon."

Bill Affecting Company Towns Defeated

● The British Columbia legislature defeated a bill introduced at its February session in Victoria that would allow free access to anyone to company towns in the province.

The legislation is of particular interest to pulp and paper companies such as Pacific Mills, Ltd., at Ocean Falls and British Columbia Pulp & Paper Company at Woodfibre and Port Alice. It was aimed primarily at protection of the rights of labor organizers and others wishing to enter such communities against the wishes of the companies controlling the towns. It would apply also to logging and lumbering and mining companies.

Colin Cameron, Socialist member who sponsored the bill, said he had often been "thrown out bodily" from company towns and that "it is high time that the rights of private property shall be curbed."

Attorney-general R. L. Maitland denied the statement of another member that the provincial police in company towns were controlled by the companies.

Tom Uphill, Independent Labor member for Fernie, charged that in one company town the preacher was compelled to preach "according to the wishes of the company."

"That's nonsense," retorted Premier John Hart.

Camas Red Cross Drive Highly Successful

● The Red Cross war relief drive went over the top "nearly 100 per cent" at Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington, according to J. E. Hanny, resident manager. A $250 check from the company started the drive which was successfully completed February 2nd, when V. C. Gault, personnel manager, presented two checks totalling $3,078.92 to Pete Fertello, chairman of the Red Cross war relief drive.

Employees of the company contributed $2828.92 in a payroll deduction plan. Business people and others of Camas not connected with the mill gave, in addition, nearly $800 to the drive.

The company and employees raised more than the city's $3000 quota.

Weyerhaeuser Credit Union Holds Large Banquet

● The Weyerhaeuser Pulp Federal Credit Union of Everett, held its annual meeting January 23rd in the form of a banquet which was attended by close to 250 people.

The feature of the banquet was a talk by R. B. Wolf, manager of the Pulp Division Weyerhaeuser Timber Company, on the pulp and paper supply situation and its importance to the men in the Pulp Division. Talks were given by G. S. Brazeau and R. J. Le Roux, manager and superintendent, respectively, of the Everett Mill; by Mr. Dodd, supervisor of the Wahsington State League of Credit Unions, and by Mr. Upinghouse, assistant treasurer of the Northwest Mutual Fire Association credit union of Seattle.

Harold Steele, head oiler of the Everett Mill, acted as master of ceremonies and awarded the door prizes. First prize, a $25 Defense Savings Bond went to Harold Brown. An enjoyable entertainment program included several vocal solos by Ted Rowell who was accompanied on the piano by Mary Alice Webb.

At the conclusion of the program, Walter Eriksen, retiring president and Harold Griep, chairman of the loan committee, were presented gifts in appreciation of their excellent work in building up the credit union since its establishment in 1937. Carl Purnell of the entertainment committee won a special prize for selling the largest number of tickets to the banquet.

On January 28th the directors of the Weyerhaeuser Pulp Federal Credit Union elected the following officers for 1942:

A. S. Gerry, president; Carl Purnell, vice president; Gene Killion, treasurer, and Harry Anderson, clerk. Besides the officers the other directors are: Clem Bolter, Lyman Young and Art Weleber. Charles Saunders, Quinter Cripes and Carl Arrington are members of the supervisory committee. The credit committee members are: Fay Haines, chairman; Pete LaVelle, and Gregg Doty, secretary.

New Stockton Corrugating Plant Well Along

● The Stockton Division, Fibreboard Products Inc., has just completed erecting a new corrugated container plant, and installation of the machinery has been started.

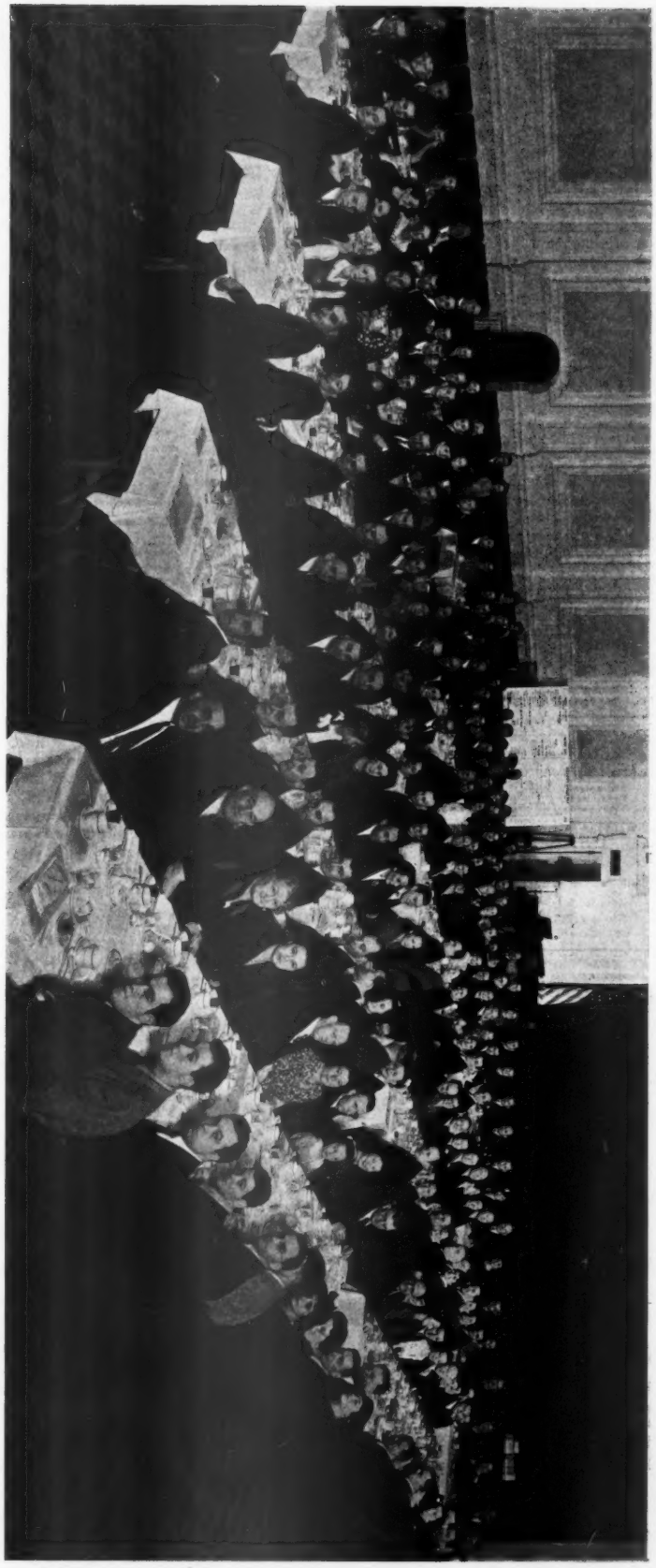
The total area of the new plant will be approximately 50,000 square feet, and it is of reinforced concrete construction.

A Langston corrugating machine is being installed and also Hooper printers and slotters.

Walter Salmonson Celebrates Arrival of Daughter

● Walter A. Salmonson of Seattle, representative of Simonds Worden White Company, passed cigars on January 27th, the occasion being the arrival of a 7-pound daughter, Linda Marie. Mrs. Salmonson and the baby are doing well.

The young lady's grandfather is Sam A. Salmonson, assistant superintendent of the Soundview Pulp Company of Everett. The Walter Salmonsons have two other children, Bobbie, age 4, and Karen, age 2 years.



Approximately 250 people attended the annual meeting and banquet of the Weyerhaeuser Pulp Federal Credit Union of Everett on January 23rd. Principal speaker was R. B. WOLF, Manager, Pulp Division, Weyerhaeuser Timber Co.

Canadian Pulp and Paper In War Time

● Pulp and paper's role in Canada's war effort was outlined at the annual meeting of the Canadian Pulp and Paper Association in Montreal by F. G. Robertson, president.

Output of all kinds of pulp and paper, according to Mr. Robertson, totaled close to 10 million tons, having a sales value of about $400 millions. Of this more than a quarter billion dollars represents the industry's contribution to Canada's external money credits.

Output last year set an all-time record and represented an increase of about 380,000 tons over 1940.

Meet U. K.'s Needs

● In the sphere directly related to the war, Mr. Robinson drew attention of the war needs for the industry's products by the United Kingdom, by the British Commonwealth and allied countries.

The makers of boxboard and wallboard have met demands from Britain, which due to war conditions have been spasmodic and therefore difficult to gauge without disrupting other urgent demands for war needs here. As compared with pre-war years, shipment of wallbard is more than doubled.

The book and writing mills and makers of wrapping papers have shipped considerable tonnage essential to the war needs of the British Commonwealth and allied countries, formerly supplied from other sources.

Exports of all kinds of pulp to the United Kingdom were again substantially increased during 1941; by about 50% over 1940. As compared with pre-war years, tonnage exports to the United Kingdom increased nearly four times. This was accomplished without serious dislocation of normal exports to the United States, which increased about 30% during the past year.

Details of manufacturing activity and steps taken to meet world-wide demands were set out in the sectional reports at the annual meeting.

Larger production of board, of all grades, totaled over 500,000 tons (actual figures for the first 11 months being 476,512 tons) an all-time record.

The demand for board for war purposes became so great during 1941 that an emergency committee was created to study the situation. It decided that certain grades, calipers, colors, etc., should be eliminated. The introduction of these new manufacturing methods is expected to materially assist in the war effort, but it is expected that further changes and eliminations this year will be needed.

One of the problems is effective action to increase the flow of wastepaper to the mills. This material is vital to manufacture of shell tubes and other essential war requirements. Stocks of wastepaper on hand at the mills Jan. 1, 1941, had decreased by 29% to the end of September and today many mills are operating hand to mouth.

Ration Fine Orders

● The book and writing paper mills report production and shipments in 1941 exceeding those of the previous year, figures for the two years indicating that production increased 8.9% and shipments 12.6%.

Demand for fine papers has increased appreciably, particularly for government use, and also because imports declined. This has resulted in increased mill backlogs, because of which in certain instances mills have been obliged to place customers on an allotment or quota basis.

Imports last year declined in tonnage 44% and in value 27% for blotting, cardboard and Bristols, rotogravure, magazine stock and cover.

Face Many Problems

● Since the outbreak of the war, there has been an increased demand for Canadian-made fine papers from countries which formerly received supplies from abroad. Not all of these demands have been filled because, in a measure, they have been limited by the permits that can be obtained in relation to the export shipments.

Outlook for this year in the fine paper section is uncertain. It is anticipated production will be maintained at satisfactory levels, notwithstanding restrictions in relation to raw materials.

Chemical Pulp Booming

● Chemical pulp mills report abnormally active demand. In 1940 this branch of the industry was already hard pressed, but with the complete cessation of shipments to the United States from Scandinavian countries, during 1941, and only very small and spasmodic shipments from Finland and Sweden to countries other than United States, all papermakers throughout the world sought pulp supplies from North America.

Exports Up 30%

● During 1941 exports of chemical pulps from Canada amounted to over 1.1 million tons, an increase of 30% over the previous year.

This reflected an overall increase in production of all chemical pulps of about 190,000 tons in 1941, as compared with 1940, an increase of about 10%.

Altogether 1941 exports of sulphite pulp to the United Kingdom were some 20% in excess of 1940. During the same period exports to the United States were also increased 33%. Exports to the United Kingdom were about three and a half times those of pre-war years.

Produce Special Grades

● During the past year both the Canadian and the United Kingdom Governments required special grades of pulp for essential war needs. These have been promptly met by voluntary arrangements within the industry whereby those mills best adapted to the manufacture of these grades produced the entire quantity needed and were compensated by tonnage of other grades from those mills whose quota they produced.

Specialty Field Active

● In the lightweight specialty paper field, all mills are operating at capacity, demand from the domestic trade often making prompt delivery impossible.

All indications point to the fact that the lightweight specialty paper mills should operate at capacity during 1942, if not impeded by shortage of pulpwood or other raw materials.

Groundwood at Capacity

● In the mechanical pulp section, the demand for the first two or three months of last year was not excessive, but gradually this increased until by June a definite shortage in this fibre had developed.

Drought in several sections of the United States and Canada reduced groundwood production and, in certain instances, United States' new mills had to buy some of their requirements.

Exports of mechanical pulp increased considerably over the previous year due to heavier demand from the United States and United Kingdom, and the production of dry groundwood by newsprint mills was helpful in meeting this demand.

Because of the need of additional fibre brought about by war it is expected the groundwood industry will produce during 1942 to its maximum capacity.

Heavy Demand for Kraft

Production of wrapping paper for 1941 showed a very substantial increase over that for 1940. This resulted from government demand, from the domestic and export markets.

To distribute the available tonnage for 1942 equitably customers have been put on an allotment basis. Unnecessary colors and uneconomical weights have been eliminated. Study is being given to devising ways to discourage Canada in the waste of wrapping papers or their use for non-essential purposes.

Fibreboard at Port Angeles Making Improvements

● At the Port Angeles plant of the Fibreboard Products Inc. a 3000-lb. Dilts beater has been installed.

The No. 2 machine is being rebuilt with new vats, presses, dryers, and other equipment being supplied by the Black-Clawson Company and its Shartle Brothers Division.

West Linn Unions Contribute to Red Cross

● Both unions at Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, West Linn, Oregon, cooperated with the management to participate in the Red Cross war relief drive, raising a total of $653.50.

Local 68, International Brotherhood of Pulp, Sulphite and Papermill Workers contributed $450.50. Members of Local 166, International Brotherhood of Papermakers, a much smaller local, gave $138.50 and office employees and foremen gave $64.50.

This Red Cross drive was conducted as a joint venture between labor and management, and is said to be a new departure over past procedure. Tony Herbst, a union member, solicited the men on the job. At the management's suggestion, his wages were paid by the company for the time required to talk to the men. Contributions were largely made through payroll deductions.

TAPPI Hears of Waste Wood Use And Discusses Maintenance

THE Pacific Section of TAPPI met at the Everett Golf and Country Club on the evening of February 3rd and 104 men heard a talk on the utilization of logging waste and joined in a discussion of maintenance.

The highlights of a logging waste survey sponsored by the Washington State Planning Council as the results affect the pulp and paper industry, were given by Professor Bror L. Grondal, College of Forestry, University of Washington, Seattle. His talk was entitled, "Logging Waste and Its Potential Value in Pulp Manufacture," and is published in this issue. His talk brought out many questions concerning the methods proposed to utilize the waste wood produced in logging. Professor Grondal stated that the system outlined in his talk was only a start and he hoped better methods would develop out of intensive study and experimentation.

A short moving picture of the bombing of Pearl Harbor was shown prior to the discussion of maintenance.

Chairman Carl E. Braun, who presided, and vice chairman Edward P. Wood, planned the discussion of maintenance because of the vital necessity for better maintenance of plants and equipment during the war emergency. This discussion will open up the subject for possible further discussion at later meetings Mr. Braun said.

Before the discussion began he described in an interesting manner his experiences as an amateur radio operator on December 7th when the bombing of Pearl Harbor began.

A running account of the maintenance discussion follows in this article. Taking part were Orivlle Fox, D. K. Macbain, J. H. McCarthy, Russell Le Roux, A. S. Quinn, Carl Ries, A. E. Duke, G. F. Alcorn, W. R. Gibson, Harry H. Richmond. A number of others asked and answered questions from the floor.

Chairman Braun announced that the next dinner meeting will be held March 3rd in Portland, Oregon.

The following men attended the TAPPI dinner meeting held at Everett on February 3rd:

● **Gerald Alcorn,** Pulp Division Weyerhaeuser Timber Co., Everett; **C. A. Anderson,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **B. Eldon Anderson,** Rayonier Incorporated, Tacoma Division, Tacoma; **Niles M. Anderson,** St. Regis Paper Co., Kraft Pulp Division, Tacoma; **Fred Armbruster,** Great Western Division, The Dow Chemical Co., Seattle; **Henry E. Beeker,** Soundview Pulp Co., Everett; **Geo. H. Beisse,** Pulp Division Weyerhaeuser Timber Co., Longview; **H. K. Berger,** Everett Pulp & Paper Co., Everett; **Paul S. Billington,** Pulp Division Weyerhaeuser Timber Co., Longview.

Carl E. Braun, Hawley Pulp & Paper Co., Oregon City; **G. S. Brazeau,** Pulp Division Weyerhaeuser Timber Co., Everett; **W. C. Bubar,** Bubar Dust Systems, New York City; **A. M. Buck,** Pulp Division Weyerhaeuser Timber Co., Everett; **A. M. Cadigan,** St. Regis Paper Co., Kraft Pulp Division, Tacoma; **Claude Callaghan,** The Flox Co., Tacoma; **John M. Carlson,** Soundview Pulp Co., Everett; **Robert Carlson,** Pulp Division Weyerhaeuser Timber Co., Everett; **Wm. C. Chapman,** Ingersoll-Rand Co., Seattle; **R. E. Chase,** R. E. Chase & Co., Tacoma.

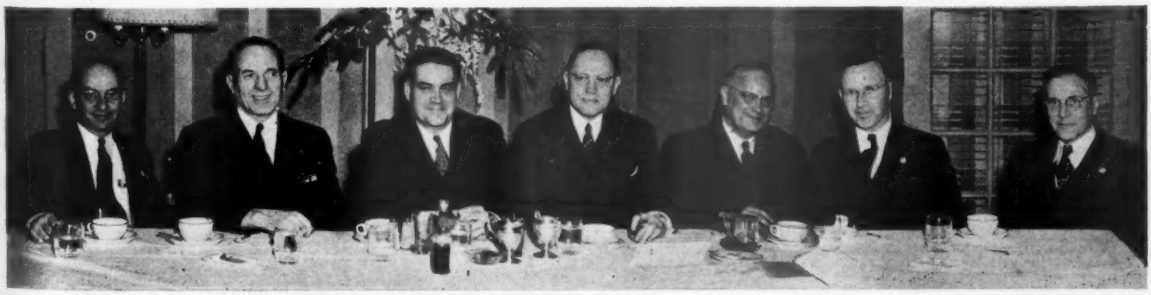
P. W. Christensen, Pulp Division Weyerhaeuser Timber Co., Everett; **Sid-**

The March TAPPI Dinner

Will be held at the Heathman Hotel in Portland, Oregon, the evening of March 3rd. The subject of Maintenance will be continued through the presentation of a paper entitled, "Mechanical Insurance," by Lee C. Baltzelle, Supervising Engineer, Pacific Indemnity Company, Seattle.

A second paper, "Spectrochemistry—A New Tool for Industry," will be presented by James N. Orr of the Charlton Laboratories of Portland, and will describe the use of a modern diffraction grating spectrograph for qualitative and quantitative analysis.

J. V. B. Cox of the Paper Makers Chemical Division, The Hercules Powder Company, Portland, is chairman of the meeting in charge of arrangements.



SPEAKERS' TABLE at the February 3rd TAPPI DINNER fn Everett. Left to right, HARRY H. RICHMOND, Chief Engineer, Electric Steel Foundry Co., and member of the Executive Committee of the Pacific Section of TAPPI; WILLIAM R. GIBSON, Manager, Northwest Filter Co.; RUSSELL J. LE ROUX, Superintendent, Everett Mill, Pulp Division Weyerhaeuser Timber Co.; CARL E. BRAUN, Chairman of the Pacific Section of TAPPI and Vice President and Mill Manager, Hawley Pulp & Paper Co.; Professor BROR L. GRONDAL, College of Forestry, University of Washington; SAM A. SALMONSON, Assistant Superintendent, Soundview Pulp Co., and Third Vice Chairman, Pacific Coast Division of the Superintendents Association; FRED A. OLMSTED, Technical Supervisor, Crown Willamette Paper Co., Division of Crown Zellerbach Corporation, Camas, past Chairman of the Pacific Section and member of the Executive Committee.

One Common Goal

★ ★ ★ ★ ★ ★ ★ ★ ★

As war conditions place an increasingly heavier strain on our Industrial Front, civilian curtailments and restrictions are inevitable.

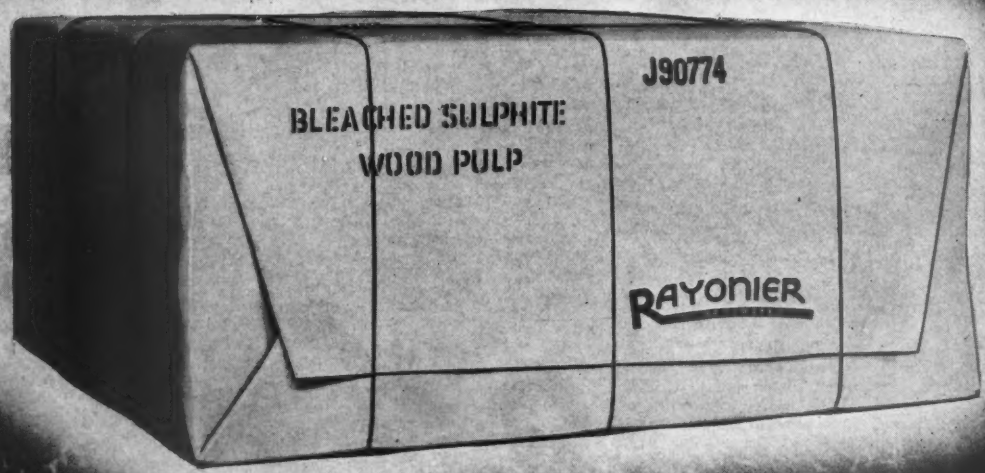
In the difficult days ahead it will be necessary for producers and consumers to bear in mind that no inconveniences or sacrifices are too great to achieve the one common goal — Victory.

RAYONIER
INCORPORATED

Better Pulps for Better Performance

Mills: Hoquiam, Port Angeles, Shelton, Tacoma, Wash. and Fernandina, Fla. • *Executive Offices:* 343 Sansome Street, San Francisco • *Sales:* 122 East 42nd Street, New York

★ ★ ★ ★ ★ ★ ★ ★ ★



ney M. **Collier,** Puget Sound Pulp & Timber Co., Bellingham; **N. W. Coster,** Soundview Pulp Co., Everett; **J. V. B. Cox,** Hercules Powder Co., Portland; **J. Bayard DesCamp,** Rayonier Incorporated, Tacoma Division, Tacoma; **John Doering,** Pulp Division Weyerhaeuser Timber Co., Longview; **R. E. Drane,** St. Helens Pulp & Paper Co., St. Helens; **R. E. Draper,** Pulp Division Weyerhaeuser Timber Co., Everett; **A. E. Duke,** Soundview Pulp Co., Everett; **George E. Durkee,** Rayonier Incorporated, Tacoma Division, Tacoma.

E. O. Ericsson, Puget Sound Pulp & Timber Co., Bellingham; **A. E. Erickson,** Pulp Division Weyerhaeuser Timber Co., Longview; **O. E. Fox,** Pulp Division Weyerhaeuser Timber Co., Everett; **C. P. Fulton,** Pulp Division Weyerhaeuser Timber Co., Everett; **N. O. Galteland,** St. Regis Paper Co., Kraft Pulp Division, Tacoma; **Irving R. Gard,** Merrick Scale Mfg. Co., Seattle; **A. S. Gerry,** Pulp Division Weyerhaeuser Timber Co., Everett; **Wm. R. Gibson,** Northwest Filter Co., Seattle; **Albert C. Gribos,** Rayonier Incpororated, Tacoma Division, Tacoma; **Harold G. Griep,** Pulp Division Weyerhaeuser Timber Co., Everett.

Bror L. Grondal, College of Forestry, University of Washington, Seattle; **V. C. Haner,** Puget Sound Pulp & Timber Co., Bellingham; **H. A. Hauff,** Pulp Division Weyerhaeuser Timber Co., Longview; **Norman Heglund,** Soundview Pulp Co., Everett; **Wheeler Hinkle,** Soundview Pulp Co., Everett; **J. J. Hollender,** Hawley Pulp & Paper Co., Oregon City; **H. P. Huebner,** Pulp Division Weyerhaeuser Timber Co., Everett.

Rusty Inkster, Pulp Division Weyerhaeuser Timber Co., Everett; **E. R. Johnson,** Contractor, Everett; **Lester M. Johnson,** Pulp Division Weyerhaeuser Timber Co., Everett; **W. A. Kelly,** The Waterbury Felt Co., Portland; **B. L. Kerns,** Westinghouse Electric & Mfg. Co., Seattle; **R. L. Kettenring,** Raponier Incorporated, Tacoma Division, Tacoma; **Carl R. Koch,** Westinghouse Electric & Mfg. Co., Seattle; **Harold Lange,** Cellulose Products Laboratory, Tacoma; **Chas. Lawrence,** Soundview Pulp Co., Everett.

Russel LeRoux, Pulp Division Weyerhaeuser Timber Co., Everett; **J. R. Lewis,** Anacortes Pulp Co., Anacortes; **D. K. MacBain,** Pulp Division Weyerhaeuser Timber Co., Longview; **A. C. McCorry,** St. Regis Paper Co., Kraft Pulp Division, Tacoma; **J. H. McCarthy,** Soundview Pulp Co., Everett; **John J. McNair,** Pulp Division Weyerhaeuser Timber Co., Longview; **Don McPhee,** Pulp Division Weyerhaeuser Timber Co., Everett; **J. H. Moak,** Soundview Pulp Co., Everett; **T. H. Moran,** Pulp Division Weyerhaeuser Timber Co., Everett; **D. C. Morris,** James Brinkley Co., Seattle.

Gordon Morseth, Puget Sound Pulp & Timber Co., Bellingham; **Fred Nicholson,** Stetson-Ross Machine Co., Seattle; **J. G. O'Brien,** Soundview Pulp Co., Everett; **F. A. Olmsted,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Oscar J. Olson,** Soundview Pulp Co., Everett; **William Pittam,** Pulp Division Weyerhaeuser Timber Co., Longview; **Paul A. Pittenger,** Bumstead-Woolford Co., Seattle; **Frank A. Purdy,** Pulp Division Weyerhaeuser Timber Co., Everett; **A. S. Quinn,** Stebbins Engineering Corp., Seattle.

Carl A. Ramstad, Soundview Pulp Co., Everett; **Archie P. Ratliff, Jr.,** Pulp Division Weyerhaeuser Timber Co., Everett; **S. A. Ridpath,** Pulp Division Weyerhaeuser Timber Co., Everett; **E. D. Rich,** Cellulose Products Laboratory, Tacoma; **H. H. Richmond,** Electric Steel Foundry, Portland; **Oliver E. Ronken,** Soundview Pulp Co., Everett; **G. D. Ross,** St. Regis Paper Co., Kraft Pulp Division, Tacoma; **H. Radford Russell,** Everett Pulp & Paper Co., Everett; **S. A. Salmonson,** Soundview Pulp Co., Everett; **Walter A. Salmonson,** Simonds Worden White Co., Seattle; **Harlan Scott,** Pacific Pulp & Paper Industry, Seattle.

J. M. Shedd, Everett Pulp & Paper Co., Everett; **Brian Shera,** Pennsylvania Salt Mfg. Co. of Washington, Tacoma; **C. A. Shively,** Soundview Pulp Co., Everett; **L. K. Smith,** Pacific Pulp & Paper Industry, Seattle; **Chas. Stehman,** Soundview Pulp Co., Everett; **Thomas W. Stewart,** Pulp Division Weyerhaeuser Timber Co., Everett; **H. T. Stoddard,** Soundview Pulp Co., Everett; **Allan C. Strang,** Anacortes Pulp Co., Anacortes; **Earl G. Thompson,** Great Western Division, The Dow Chemical Co., Seattle; **William E. Thorp,** Cellulose Products Laboratory, Tacoma.

V. L. Tipka, Hawley Pulp & Paper Co., Oregon City; **G. R. Torkelson,** Pulp Division Weyerhaeuser Timber Co., Everett; **G. P. Tostevin,** Soundview Pulp Co., Everett; **H. A. Vernet,** A. E. Staley Mfg. Co., San Francisco; **R. O. Vognild,** Hooker Electrochemical Co., Tacoma; **F. P. Wilder,** H. Waterbury & Sons Co., Portland; **Kenneth E. Willmer,** Pulp Division Weyerhaeuser Timber Co., Everett; **L. A. Wendt,** Pulp Division Weyerhaeuser Timber Co., Everett; **R. E. B. Wood,** Pulp Division Weyerhaeuser Timber Co., Everett.

Discussion of Maintenance

CHAIRMAN Braun opened the discussion on maintenance by saying that it was a most timely subject in view of the shortage of materials and the need to maintain production at a maximum. The junk pile at the Hawley Pulp & Paper Company's mill is already pretty low, he said, due to raids upon it by the maintenance men, and he supposed the same situation applied to most of the Pacific Coast mills. Daily it is becoming more essential to catch potential trouble through careful inspection of equipment and thereby avoid wastage of materials and costly shutdowns.

Methods of Periodical Inspection

● A discussion of maintenance should begin with an examination of methods of periodical inspection as employed by different mills.

Chairman Braun called upon Orville E. Fox, office manager, Everett Mill, Pulp Division Weyerhaeuser Timber Company, to describe the Weyerhaeuser tickler system which was devised to maintain necessary inspection of equipment and the preparation of reports without dependence upon the memory of supervisors.

The tickler memorandum originates with the supervisors, Mr. Fox said. They make out the form containing the necessary information; to whom, period covered; information required or inspection to be made; date to start; how often report is to be made. He sends this to the tickler clerk who makes out the necessary copies. A copy goes into the clerk's master file. Another goes to the man who is to make the inspection and a third goes into the followup file. Usually 3 days or more elapse before report is to be made.

Each morning the tickler clerk checks the file for reports due that day and checks to make sure the report comes in on time. When the man ordered to make the inspection reports back and returns his copy of the order, the clerk destroys her copy and corner clips the report to the returned copy of the original inspection order and gives them to the superintendent or other supervisor who is to receive the report. If the report indicates repair work is needed the superintendent sends it to the engineering department and issues a work order.

The tickler system, Mr. Fox stated, eliminates the need for supervisors to carry a lot of instructions in their heads. It avoids reliance upon the memory and places the maintenance work on a regular schedule. In using this system, Mr. Fox warned against starting too many ticklers for unimportant things. It must be reserved for inspection of the more vital equipment that might curtail production if failure occurred.

Another use of the tickler system is the maintenance of warehouse stocks by the store clerk. Mr. Braun asked if in using the tickler system every piece of mill equipment was numbered to facilitate inspection and reporting. Mr. Fox said that it was so numbered.

Plant Engineer's View Point

● Chairman Braun asked D. K. Macbain, plant engineer, Longview Mill, Pulp Division Weyerhaeuser Timber Company, Longview, how the tickler system worked from the plant engineer's viewpoint.

Mr. Macbain replied that the sys-

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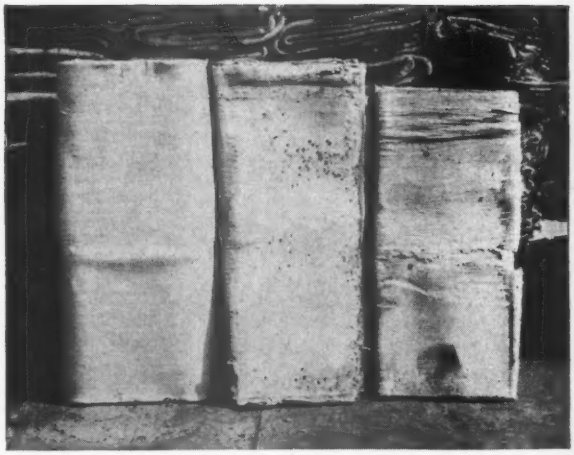

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tem was an integral part of the plant engineer's work in the Weyerhaeuser organization. The plant engineer's job is to get the material and do the work after inspection under the tickler system indicates the need for repairs. Maintenance is more the doing of the work than inspection.

Operators on the job, said Mr. Macbain, are in a better position to detect need for maintenance than the inspector and hence are instructed to pass on their observations to suprevisors who in turn issue inspection orders to check up.

Mr. Macbain then described the evolution of the tickler system. In the early days of the operation at Longview everybody told the master mechanic what should be done. Then everyone wrote requests for repair work on memos and gave them to the master mechanic. This resulted in confusion, too. Then the problem of maintenance work was analyzed.

The study showed the need for a continuing record of work ahead; a system of filing; seeing that the information went to the manager, superintendent and engineers concerned; knowledge of the status of the work; bringing operators into the maintenance work; discussion on importance of the work projected; data permitting accurate segregating by the accounting department.

Work Order System

● Out of these requirements evolved the present system, said Mr. Macbain. The work orders, now used, include spaces for the department, outline of the work and the department to be charged. Issued after inspection has shown the need, the work orders are divided into four groups, each designated by a color.

White indicates ordinary maintenance work.

Green is used for safety jobs.

Red is for emergency work.

Blue indicates jobs to be done during shutdown periods.

Three copies are made. One goes to the master mechanic who passes it on to the man performing the work. Another goes to the superintendent and a third to the engineer.

Mr. Macbain emphasized that the success of the system depended upon the attitude of the organization. The attitude must be that maintenance is a function of all men working in the mill. All who have ideas should participate. Anyone can write a work order subject to approval. This freedom of writing orders together with the assumption of responsibility for maintenance by all operators prevents a "Let George do it" attitude.

The system has been in operation for eight years and it is remarkable how seldom poor judgment is used by operators in requesting maintenance work. Experience shows that the operators more often ask for maintenance work than do department heads.

Poor judgment in issuing work orders can be and is checked. If a supervisor decides a job should not be done he must see the man who issued the work order and explain why. This gives the operator a chance to discuss the request and it often happens that he convinces the supervisor of the need for the work.

The system gives the plant engineer a continuous picture of the maintenance jobs to be done. The jobs ahead range from 50 to 250 with 100 about the average. In 1933 the Longview mill had 3400 maintenance jobs, while in 1937 they totaled 4600. The average cost is from $60 to $80 per work order.

The white orders are usually issued by operators. One man from each group picks them up the first thing each morning. This practice recognizes the importance of the orders to the men who write them. The greatest care must be taken in examining the red orders, as they are the rush jobs. Some times they could very well be written on the white blanks. The green orders for safety work receive preference. The blue orders are held for shutdown and enable the engineer to plan his work while the equipment is idle to make the best use of the time available.

Mr. Macbain concluded, saying that this system, like all others, is successful only when the men in the organization are sold on its value.

Chairman Braun remarked that the use of a system as outlined by Mr. Macbain was most timely in view of the shortage of materials for it kept maintenance work at a minimum and production at a maximum. He called upon Jerry Alcorn, plant engineer, Everett, Mill Pulp Division Weyerhaeuser Timber Company, to describe the system employed in the Everett plant.

Mr. Alcorn stated that the Everett Mill used but two work orders, blue and white. The blue designates work to be done during shutdowns and the white covers all other maintenance work. These two are found sufficient. The tickler system has two functions, said Mr. Alcorn, inspection by operators who are in a better position to determine whether equipment is in need of repair, and repair work done by the engineering department.

In answer to a question by Mr. Braun, J. H. McCarthy, resident engineer, Soundview Pulp Company, Everett, stated that they did not employ a tickler system. Mr. McCarthy said he thought a tickler system of inspection and repotrs would show up inefficient equipment and asked Mr. Fox if the Weyerhaeuser system did that. Mr. Fox said that such was not the purpose of the system but that it did indirectly show up poor equipment. If, for example, a pump shows a constant heavy maintenance on the records, there is obviously something wrong and the proper men investigate.

Mr. McCarthy remarked that a lack of records often makes it difficult for the operators and maintenance men to convince management that a new piece of equipment is needed.

Russell J. Le Roux, superintendent, Everett Mill, Pulp Division Weyerhaeuser Timber Company, remarked that the tickler system automatically brought the attention of operators and management to faulty equipment. To avoid any tendency of the tickler system to burden the engineering and maintenance departments, the work orders resulting from the inspections are now filtered through department heads and the superintendent. Inspection ticklers now go to the head of the department. If he decides work is to be done he asks for a work order and sends it to the maintenance department. Before the work is done it goes to the superintendent for approval.

Mr. Le Roux also spoke of the important part in maintenance played by the Weyerhaeuser chart system which records all phases of operations and quickly spotlights any problem that needs attention.

Carl Ries, master mechanic at the Everett Weyerhaeuser Mill had a specific question to ask concerning oilite bearings on flat screens. He said they had considerable difficulty with them. Arthur Duke, master mechanic for the Soundview Pulp Company stated they had the same difficulty at first but found it could be solved by exceptional care in the fit of the bearings and bushings. They use a high lead bronze, he said.

N. W. Coster, technical director, Soundview Pulp Company, stated that it was frequently necessary for the technical director and the plant engineer to study problems together and mentioned several examples where cooperation between the two had increased production and effi-

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ciency.

Chairman Braun said it was easy for operators and managers to think things in the mill were OK when they weren't He cited an example at the Hawley mill. Mill A, the water driven groundwood mill, was down for five months during the low water period of the Willamette River, and much rebuilding was carried on. It was all timber work and did not involve equipment. After the grinding was resumed, production was satisfactory for two weeks. Then production dropped and tailings increased to a point where the bin wouldn't hold them. The superintendent and engineer said the stock was all right and nothing appeared to be wrong. The technical director checked and found the grinding was going according to schedule and the fibers were satisfactory for papermaking. But, he discovered the consistency was too high and the screens were clogging. The consistency was dropped and the problem was solved. There was no apparent reason for this change in consistency, Mr. Braun pointed out, and hence the operators thought things were going smoothly.

The use of the photo-electric cell method of determining and controlling consistency was discussed and the opinion was that it was a satisfactory system. This has been discussed in two articles appearing in PACIFIC PULP & PAPER INDUSTRY in recent years, the latest being a paper by Louis A. Wendt, Everett Mill, Pulp Division Weyerhaeuser Timber Company, which won the Pacific Section TAPPI Shibley award in 1939. Mr. Wendt's paper was entitled "A Discussion of the Operation of Photo-Electric Consistency Controllers," and appeared in the April, 1939, issue, pages 12 and 13.

Digester Maintenance

● Chairman Braun called on A. S. Quinn, vice president of the Stebbins Engineering Corporation, Seattle, to comment on this phase of maintenance. Mr. Quinn said that under present conditions of maximum operating speed the only thing that can be done is to make the cook on the floor responsible for reporting the condition of the digester linings. He can determine this after each cook by dropping a 200-watt light with a clean reflector into the digester. The reflector must be clean, as a dirty one absorbs so much of the light the value of the inspection may be lost. If the cook sees anything wrong with the lining, such as a wet spot, he should note it on the record of the cook just blown and then make sure the superintendent sees it. The superintendent can have the cooks spaced so the next time the digester is blown he can inspect it personally and more thoroughly.

If a leak is suspected the outside of the digester should be examined for unusual oozing. If caught right away the cavity in the lining can be filled by pumping in suitable material.

All stainless steel fittings, said Mr. Quinn, should be inspected and pointed at least very six months. It is far better to lay off a digester for a cook and perform the necessary maintenance work, than to put it off and eventually lose several days' time.

Harry H. Richmond, chief engineer of the Electric Steel Foundry Company, Portland, was asked concerning the stainless steel situation. He stated that the A-10 priority held by the industry could obtain some stainless steel if available. No predictions can be made, said Mr. Richmond, as the quantity of stainless steel needed in the war industries cannot be accurately foreseen.

William R. Gibson, manager of the Northwest Filter Company of Seattle and formerly a plant engineer, suggested that a good method of keeping track of single spare parts in the store room was to use colored tags. When the spare part is taken out, half of the tag containing the description of the part is torn off by the storekeeper who orders a duplicate.

Another suggestion made by Mr. Gibson was the holding of a foremen's meeting a few days before the mill was scheduled to shut down to discuss the work planned and fit it together in order that the maximum could be accomplished in the available time.

Roger E. Chase, president of R. E. Chase & Company, Tacoma, manufacturers' agents, said that the tendency today was to operate equipment under conditions not expected by the manufacturer when the equipment was designed. To avoid breakdowns he suggested that maintenance men and operators hunt up the instructions which came with the equipment to see if it is being operated as the manufacturer intended. Mr. Chase said that today everything possible should be done to make equipment last.

Chairman Braun closed the discussion by saying only a few highlights of mill maintenance had been touched upon as it was a broad subject and well worth further discussion at another dinner meeting.

Removal of Japanese Creates B. C. Labor Shortage

● British Columbia pulp and paper mills will probably have few Japanese workers on their payrolls in a short time as a result of Canadian government policy in removing all Japanese of military age from the coastal area.

A special committee has been set up to make arrangements for the transfer of Japanese loggers, and the pulp and paper companies are co-operating with the Royal Canadian Mounted Police and the Canadian navy in the transfer of Japanese mill workers.

Until a few months ago Pacific Mills, Canadian subsidiary of Crown Zellerbach Corporation at Ocean Falls, was employing about 400 Japanese. British Columbia Pulp & Paper Company also had a large number of Japanese at its plants in Woodfibre and Port Alice.

It is expected that all the Japanese will be moved from the mills within the next few months and their places filled by white men or women. To replace them will probably intensify a labor situation already causing some anxiety, although there is said to be no genuine shortage yet. Fortunately, few of the Japanese are engaged in the skilled trades and for that reason their loss will not be serious as they can be replaced by men with little or no experience in the mills.

During the years when British Columbia pulp and paper were being sold in large volume to the Orient one argument in favor of Japanese was that apparent discrimination might have an adverse influence on an important market; but the war has eliminated that factor.

If white men cannot be found in sufficient numbers there is a prospect that more Chinese will be given jobs in the pulp mills.

Final disposition of the Japanese moved from the mills is still undetermined, although it seems likely that most of them will be engaged in the volunteer civilian corps for construtcion work in the interior, but this is not open to unnaturalized Japanese.

Some of the Japanese may be employed as farm labor in the Okanogan and on the prairies. Steps were made to transfer several hundred of the Japanese loggers to woods camps in northern Ontario, but the eastern contractors cancelled their order at the eleventh hour, and it is now doubtful whether large numbers will be sent to that destination.

Several thousand Japanese in all will have to be moved. From the fishing industry alone two or three thousand Japanese will be shifted, as more than 1,100 Japanese fishing vessels have been taken over by the Canadian navy.

Canada and U. S. Working On Newsprint Price Program

● Canada's Wartime Prices and Trade Board announces that it is co-operating with the United States Office of Price Administration in a joint program for arriving at prices of newsprint and related products.

In a dispatch from Ottawa the board states that "an immediate study of the bases for second-quarter prices will be undertaken in the two countries.

"On the basis of these studies a definite announcement will be made prior to April 1, at which time second-quarter prices will take effect."

Trade Talk

of Those Who Sell Paper in the Western States

Sierra Paper Moves To New Location

● Sierra Paper Company opened for business in a new location at 4355 Fruitland Avenue in the Los Angeles Central Manufacturing District on January 10th after shifting from 130 South Los Angeles Street, Los Angeles. The new quarters contain 80,000 square feet of floor space served by a private railroad spur. The newly occupied building is a two-story concrete structure housing all facilities under one roof. It compares with 60,000 square feet of area contained in three buildings at the recently vacated location.

Sierra Paper, with 110 employees, is headed by President Paul Butler. Thomas A. O'Keefe is vice-president and general manager in charge of West Coast operations of the firm, which is a subsidiary of Butler Paper Company of Chicago. A brother, Timothy F. O'Keefe, is assistant general manager.

Coincident with the removal announcement came word that Everett E. Bell has been named manager of the Long Beach branch and that Roman M. Artz, former Long Beach manager, assumes the duties of superintendent of operations at the new Los Angeles building.

Milwaukee Lace Paper Makes Way for War Industry

● Milwaukee Lace Paper Company's Los Angeles branch is making way so that war industry can "Keep 'Em Flying," according to Manager Gerry Thiem. On February 1st, the quarters at 2431 East 14th Street were vacated in favor of 1018-20 South Santa Fe Avenue, near Sacramento Street, where warehouse and offices henceforth will be located. Next door to the vacated property is an industrial plant making parts for the national offensive. The plant required extra "elbow room" in order to turn out the airplane parts in quantity to satisfy requirements, but could expand only in the direction of the Milwaukee Lace quarters. Learning of the urgent need, Milwaukee Lace gladly moved.

Ritchie Announces Arrival of Son

● C. M. Ritchie, Everett Pulp & Paper Company, San Francisco office, was passing out cigars January 13, the occasion being the advent of David Bruce Ritchie, five pounds, 14 ounces. The infant is the Ritchie's first child.

Newmark Is Naval Officer

● Steve Newmark, formerly in the Los Angeles Division of the Zellerbach Paper Company, and nephew of Victor E. Hecht, vice president of the company, is now an officer in the Navy.

H. W. HENRY, President Graham Paper Company

Henry Elected President Of Graham Paper Co.

● H. W. Henry was elected president of the Graham Paper Company of St. Louis at its annual meeting January 28, succeeding C. W. Lewis, who retired after an active service of 47 years with the company. Mr. Henry, who is 48 years of age, served as the company's auditor for many years and during the past six years has been treasurer and a director of the Company. Prior to his connection with the company, he was a partner in a well known firm of certified public accountants in St. Louis.

Other officers elected at this annual meeting were as follows: E. G. Kerwin, executive vice president; P. A. Harris, vice president; D. French, vice president; W. H. Kniep, secretary and treasurer.

The Graham Paper Company is exclusive distributor of the kraft paper and bags manufactured by the St. Helens Pulp & Paper Co., St. Helens, Oregon, and maintains sales offices in San Francisco, Los Angeles, Portland and Seattle.

Arthur Towne To Attend Convention

● Arthur W. Towne, northern California manager, Blake, Moffitt & Towne, left San Francisco early this month to attend the annual paper trade convention in New York. Mr. Towne also planned to attend the regular annual meeting of Tested Papers to be held just prior to the paper trade convention.

Paper Trade Conference Has Been Dissolved

● The Paper Trade Conference of San Francisco which has been in continuous existence for the past 30 years, has been dissolved.

Bonestell to Attend Paper Convention

● H. S. Bonestell, Jr., head of Bonestell & Company, San Francisco, accompanied by Mrs. Bonestell, will attend the annual paper trade convention in New York. Later the Bonestells will take a three week's trip through the south, taking in Miami and New Orleans.

BM&T Using Blotter Calendars

● Blake, Moffitt & Towne are sending quarterly blotter calendars to their friends. These blotter calendars tie-in with the big yearly calendars the company publishes.

BM&T In Los Angeles Improves Delivery Service

● The Los Angeles Division of Blake Moffitt & Towne recently sent a notice to the trade that they were adding two new trucks to their fleet to render even greater service to their customers.

Paper Mill Men's Club Holds February Meeting

● February's meeting of the Paper Mill Men's Club of Southern California was held on the 6th of the month at Southern California Golf and Country Club (formerly Midwick) on the border of Monterey Park. A representative attendance was on hand to hear a report of the annual Christmas party from President Lester E. Remmers.

The February session was open to discussion by all members. A lively forum on membership was developed during the evening. After dinner had concluded, the forty members present adjourned to the game rooms for cards.

Golf during the afternoon occupied some thirteen members: M. Moss, J. W. Genuit, F. VanAmberg, Al Hentschel, Newby Green, G. A. Thiem, Harry Fields, Irv Damon, Emil Le Vigne, B. P. Altick, R. E. Fletcher, Art Fox and Marvin Vanderheiden.

President Remmers announced that the forthcoming meeting is set, tentatively, for March 6th at Flintridge Country Club in the Flintridge section.

The April meeting will see nomination and election of officers for the ensuing year.

Harold Zellerbach, Victor Hecht Attend Convention

● Harold L. Zellerbach, president, and Victor E. Hecht, vice president, of the Zellerbach Paper Company left for New York to attend the annual paper trade convention. Mr. Hecht will be gone for five or six weeks and will return through the Northwest.

Edgar Colton Joins California Guard

● Edgar Louis Colton, son of L. A. Colton, vice president, Zellerbach Paper Company, San Francisco, and formerly connected with the sales department of the Oakland division, wasn't able to get into the Army, Navy or Marine Corps, so he joined up with the California State Guard, and is now guarding the docks and piers of San Francisco.

Jaggards Take Winter Vacation

● B. P. Jaggard, Pacific Coast representative of the Hammermill Paper Co., and the Grays Harbor Pulp & Paper Co., accompanied by Mrs. Jaggard enjoyed a vacation at Palm Springs early in February.

Lambert Vacations In Los Angeles

● Wm. J. Lambert, manager of the Salt Lake Division of the Zellerbach Paper Company, spent his annual vacation in Los Angeles.

Striking Poster Makes Cover for Informant

● The cover design on the February issue of THE INFORMANT, Zellerbach Paper Company house organ, is a simplified version of the twenty-first poster in the company's reminder selling series, one of the most timely and dynamic ever published by the company.

Designed by Charles Centanni, a young artist who is rapidly gaining prominence, the original is in five colors, with red, white and blue predominating.

The slogan for the poster is: "Printing Promotes United Action." Collators of THE INFORMANT are: Victor E. Hecht, vice president; and Mrs. Glory M. Palm, advertising department.

Towne Named Chamber Director

● Arthur W. Towne, northern California manager of Blake, Moffitt & Towne, has been elected to the board of directors of the San Francisco Chamber of Commerce.

Borchers Makes Vacation Trip to Coast

● Frank A. Borchers, of Chicago, western sales manager of the Oxford Paper Company recently made a vacation trip to the Coast. While here he visited friends in the trade in Los Angeles and San Francisco.

Blake Men to Attend Paper Trade Convention

● C. L. Shorno, manager of the Portland Division, Blake, Moffitt & Towne; and Walter W. Huelat, Los Angeles Division manager, accompanied by their wives, will attend the annual paper trade convention in New York.

Shelton on Buying Trip

● E. A. Shelton, headquarters resale packaged goods department of the Zellerbach Paper Company, San Francisco, has left for the East on a buying trip.

British Columbia Enlarging Reforestation Program

● Proposals for government assistance to timber operators in a program for selective logging were made during the recent session of the provincial legislature.

Experiments in block and strip logging to restore sawlog and pulpwood areas that had been stripped of timber by logging or fire were suggested. Hon. A. Wells Gray, minister of lands, said that few areas in the province lent themselves to such operation, but that the forest service was ready to co-operate.

Several of the larger timber companies are already engaged in similar experiments on Vancouver Island.

The provincial government is stepping up its reforestation program this year and will plant 10,000,000 trees, mostly in the Campbell River and Cowichan Lake areas of Vancouver Island. The planting will cover 15,000 acres.

Sorg Employees Wait War Labor Board Hearing

● Employees of Sorg Pulp Company, kraft manufacturers at Port Mellon, B. C., who organized last August into Local 297 of the International Brotherhood of Pulp, Sulphate and Paper Workers Union (AFL) are awaiting a sitting of the Regional War Labor Board in Vancouver for a ruling on wages and cost of living bonuses in connection with a dispute between management and the union.

The company refused to recognize the union as a bargaining agency.

Sorg Pulp Company resumed operations at Port Mellon after acquiring the plant from Port Mellon Operating Company last year. Expansion is now under way with a view to doubling capacity of the mill, which will sell its entire output to the United States.

Sidney Roofing's New Unit To Start In March

● Work on Sidney Roofing & Paper Company's new plant extension in Victoria, B. C., is expected to be completed within a few weeks, and production should be under way by early in March, according to Managing Director R. W. Mayhew.

On completion of the project, representing an investment of about $150,000 for building and machinery, the company will have an entirely new unit for the manufacture of roofing felt, dry felts, box board and dry building papers.

Emphasis of production will be concentrated on manufacture of roofing felts.

With a monthly capacity of about 750 tons of dry felt, the new unit will be able to produce 3500 tons a month of prepared roofing and asphalt shingles.

First Aid Training Helping Civilian Defense

● Civilian defense leaders at Port Angeles, Washington, are grateful these days to the Crown Zellerbach, Rayonier and Fibreboard Products corporations for the intensive programs of first aid instruction they have conducted in recent years.

With first aid training a requirement in many of the civilian defense branches, the scores of mill employes who have had the training have stepped into the Port Angeles defense organization well equipped.

Several have qualified as instructors and now are teaching classes of air raid wardens, auxiliary police and firemen and other groups in and near Port Angeles. Safety supervisors reported early this month that Ernest Wagner, Earl Henry and Foster Beal, from the Rayonier plant; George Hansen, Earl Baker and Clair McCormick, of Crown Zellerbach, and Austin Wyman of Fibreboard Products—all experienced members of mill first aid teams, were teaching civil defense classes at that time and a number of other men were preparing to take classes. They teach the Bureau of Mines first aid courses.

New classes also were being organized in the various mills, taking in men who had never received the training and giving those who had an opportunity to review it.

In addition to these activities, Fred C. Barker, an employe of the Fibreboard Products mill, is heading the Red Cross first aid program of Port Angeles and Clallam county. He has been county chairman of first aid for the past five years and has put in hundreds of hours of instruction and other work. The Red Cross has employed him on a full-time basis for a month to expedite the training of civilian defense workers, the Fibreboard company giving him leave of absence from his job.

Even before the war started, some of the pulp mill first aid men were instructing classes. Earl Henry, of Rayonier, taught the standard Bureau of Mines course last year to a group of eight Camp Fire Girls, one of whom was his daughter, Dolly. He is taking them on into the advanced course and team work. Harold Orem, also of Rayonier, has been working with another Camp Fire group. E. A. Florence, of Rayonier, led a class of 18 housewives, students, a school bus driver and others at the country community of Blyn, near Port Angeles, in study of the Red Cross standard course several months ago.

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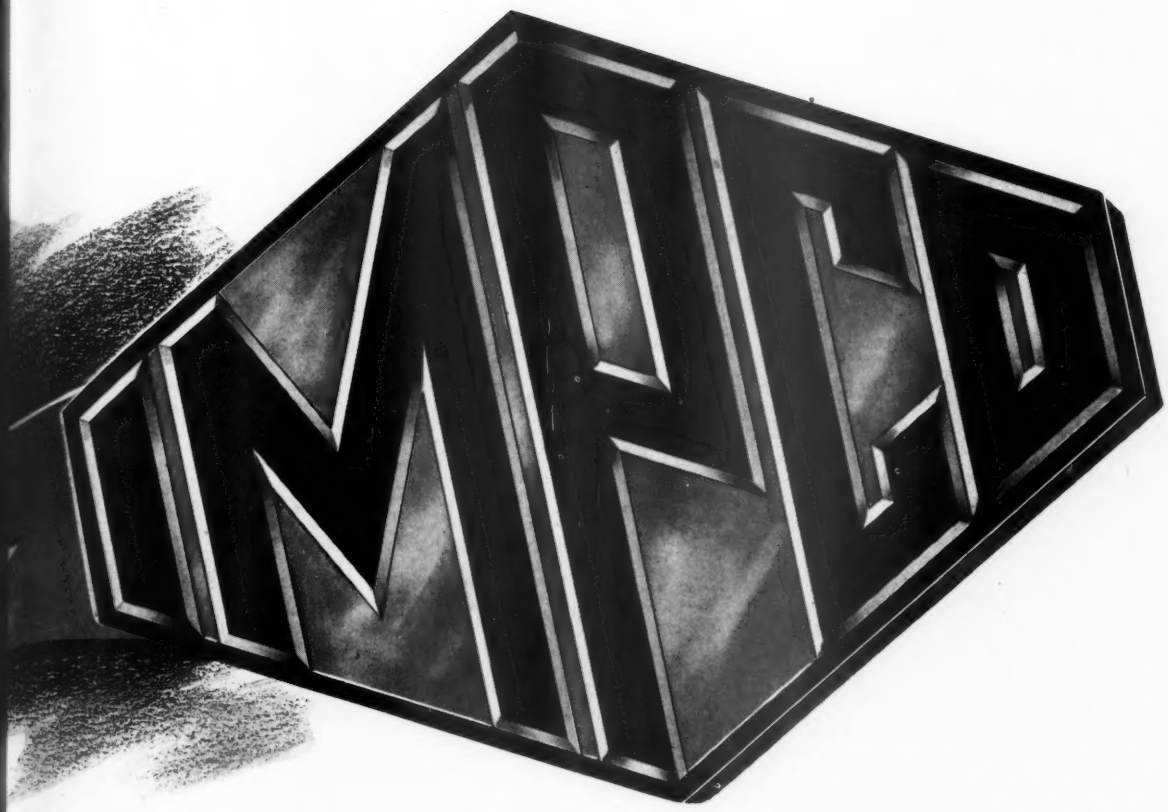

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Sorg Organizes Transportation Subsidiary

● Sorg Pulp Company has organized a new subsidiary, Sorg Transportation Company, which will manage and operate a barge ferry service between the mill at Port Mellon and Vancouver railroad terminals.

The company has acquired an old car ferry slip on the Hastings Mill site in Vancouver, on property owned by the National Harbors Board, and this will be converted into a Vancouver terminus for the new pulp service.

Bankus and Drumb Visit Mills

● Albert Bankus, vice president and Frank A. Drumb, San Francisco, California, offices, Crown Zellerbach Corporation, arrived in Portland, Oregon, the week of February 8th, to spend ten days to two weeks calling on the mills in that area and the Puget Sound mills.

Camas Girls' Basketball Team Doing Well

● Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington, has sponsored a girls basketball team during the past several seasons, but this is the first time this team entered the women's basketball league of the city of Portland, Oregon. In this league the CWPCo. team occupied second place at the end of the first half of the season's play-off, playing such teams as Montgomery Ward and Company and Portland University. One game is played each week.

Nearly all of the girls on the Crown team are employees of the paper company, working in the office, bag factory and number two finishing room.

The team has two men coaches, Herman Jacobson and Norman Buhman.

Ted Roberts Dies In Beloit

● Theodore C. Roberts, Beloit Iron Works sales engineer well known in the pulp and paper industry, died early Sunday, January 18th, at his home in Turtle Ridge near Beloit, Wisconsin.

Mr. Roberts had been in ill health for several years. A year ago he spent the winter in the south in an effort to make a recovery. The last year, however, his health failed to improve and he had been critically ill the last several weeks.

He was born in Beloit February 16, 1903, and became affiliated with Beloit Iron Works when he was graduated from Beloit High School. He served in positions of trust and responsibility as Order Department head and, at the time of his death, in the Sales Department as a Sales Engineer. He was a member of the American Pulp & Paper Mill Superintendents Association.

Interested in church affairs he served in many offices of the congregation of Our Savior's Lutheran Church. The last duties he performed were those of trustee and deacon.

Mr. Roberts was married to Miss Elsie Baukin of Beloit on September 17, 1924. He is survived by Mrs. Roberts, a daughter, Virginia, his parents, Mr. and Mrs. D. C. Roberts, and a brother, Harold Roberts.

Pacific Coast Paper Mills Has Womens' Bowling Team

● The Pacific Coast Paper Mills of Washington have entered a bowling team in the Bellingham Women's League. Showing up for contests every Monday night at the Century Alleys are the following women: Mrs. William Dynes, Mrs. Frank Block, Miss Vera Wills, Miss Dorothy Nelson and Mrs. Mary Acalin. So far the girls are showing winning form.

Simonds Saw Men Receive Service Pins

● The Simonds Saw & Steel Company, Portland, Oregon, branch, presented nine service pins to employees at a buffet luncheon January 30th. Forty-two employees attended the luncheon-presentation which was held in the Portland plant.

Foss B. Lewis, northwest manager of Simonds Saw & Steel Company, acting as toastmaster, first introduced several of the "old timers" who have formerly received service pins. These were Fred Neimeyer, anvil man, who has been with the company 24 years; Fred Reichen, saw fitter, 23 years; Julius Leitch, saw fitter, 23 years; Clarence Kingsley, milling machine operator, 21 years; H. A. Sargent, retired vice-president, 50 years; Martha E. Nilsson, cashier, 43 years; A. F. (Fred) Nelson, 28 years and A. E. (Al) Brownhill, shop foreman, 39 years.

Mr. Lewis, who has been with the company 34 years, then presented service pins to the following persons:

Thirty years—D. B. (Bert) Kingley, whose job is grinding and fitting saws. Twenty years—Walter Bunzow, anvil man and saw maker. Fifteen years—William Caldwell, machinist; T. A. (Ted) Wahlstrom, store salesman; H. N. (Dan) Danielsen, salesman. Ten years—Florence E. Larsen, stenographer. Five years—Clarence Ekstrand, Allen Mohr, Fred Austin.

To date 38 employees of Simonds Saw & Steel Company, in the Pacific Northwest, have received service pins. There are 45 employees in the Portland branch.

Roy Young Northwest Victor

● Roy Young, of the San Francisco offices, Crown Zellerbach Corporation, spent the first week of February in the Portland, Oregon, office and calling at the West Linn and Camas, Washington, mills.

GIRLS' BASKETBALL TEAM of the Camas mill, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, which held second place at the end of the first half of the season in the Portland Women's Industrial League.

Standing, left to right, NORMAN BUHMAN, Coach; SYBIL SHIRLEY, DUTCH WATSON, IDELLA EVANSON; INGER EIDE, BETH HICKS; THELMA RANCORE; and HERMAN JACOBSON, Coach.

Seated, left to right, OLIVE JACOBSON, Captain; SALLY STENEHJEM; Mrs. IRENE BUHMAN; Mrs. MAXINE WILLMS; NADINE HOARD; EDITH FREWING; JOAN PALMER; and MARGARET FALER.

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Papermakers Hold Interesting February Meeting

Hear talks on synthetic rubber production, dyestuff situation and Swedish forestry in war time.

WITH three featured speakers talking on such interesting subjects as rubber, dyestuffs and the Swedish timber situation, the February meeting of Papermakers & Associates of Southern California (PASC) drew 54 men to Scully's restaurant in Los Angeles on the 12th of the month.

Herman L. Joachim, chairman, preceded the dinner session with award of the door prize, a pen and pencil set, to George Cunningham. All present stood at attention before dining while our national anthem was played from a recording.

Announcing that PASC membership now totals ninety men, Joachim named Walter Genuit of Fernstrom Paper Mills; William Zeitz; and Harold Brown of El Rey Products Co., as the newest joiners.

Before turning the meeting over to U. Grant Farmer, program chairman of the evening, Joachim called for a report from Dr. A. O. Beckman, head of a Committee on Vocational Training. Dr. Beckman made four suggestions in line with work of the committee: (1) Mills might employ students in chemical engineering for the summer months as temporary help during a rather critical employment situation; (2) special inspection trips through mills by students might inculcate interest among young people to enter the papermaking field; (3) the industry as a whole might sponsor speakers to talk before schools of industrial chemistry or chemical clubs; (4) an essay contest might be sponsored in order to generate added interest among students.

Since the April meeting will see election of officers for the ensuing year, Joachim named as a nominating committee: Walter Genuit (chairman), Willard Axtell, Albert Clerx, E. Campbell, Francis Mark.

Guests at the meeting were introduced, and among those present: Paul Lentz, L. L. Crabb, A. M. Turner, A. Dahl, Harry Stilwell, Frank Frampton, Dick Anderson and Charles Remine.

Program Chairman Grant Farmer introduced as his first speaker Ivan Benson, associate professor of journalism at the University of Southern California.

Professor Benson described a recent trip to Sweden and other European countries, and reported to his audience his reactions to the forest conservation work in Sweden, particularly, during wartime.

He declared a first-hand study of Swedish re-forestation system proved to him that the methods in that Scandinavian country are far superior to those in the United States. He brought out the point that forest legislation is stringent, resulting in a very healthy timber condition. Since Sweden's exports to the U. S. have been shut off by the war, a severe economic blow has been suffered. After the war, Benson said, Germany may have secured such a strangle hold on Swedish exports of wood products that the United States may have difficulty in securing any volume of pulp and paper.

Program chairman Farmer next introduced Robert Abbott of the C. P. Hall Company. Abbott's talk was on the subject of rubber. Giving a brief history of the development of native rubber, Abbott cited the wartime restrictions now effective. He advised papermakers to make the best possible use of all available rubber because the shortage situation will become more acute before it becomes better. While synthetic rubber, 100 per cent on allocation, will show a production total of several hundred thousand tons in 1943, still it will supply only slightly more than half of normal demand as of 1941. The government, Abbott said, has been rather liberal in connection with the uses of mechanical goods, and is allowing stepped up production on many lines of rubber destined for industrial usages.

Mr. Abbott didn't place much immediate confidence in synthetic rubber because, he said, the price is too high. Although during the war "ersatz" rubber will become more and more widely used, there is some question of the survival of the commodity after the war, the chief deciding factor here being production cost, Abbott said. In summing up the entire rubber situation, Abbott confessed he didn't know all the answers, but was confident of more stringent regulations pertaining to its uses than have been is-

1. Left to right: DR. A. O. BECKMAN of National Technical Laboratories, chairman of the Vocational Training Committee of PASC; W. A. KINNEY, Flintkote Company, Pioneer Division; CHARLES FRAMPTON, Fernstrom Paper Mills, Pomona; JOHN VAN OUNSEM, Flintkote Company, Pioneer Division, secretary of the Papermakers and Associates of Southern California.

2. Left to right: R. D. ABBOTT, C. P. Hall Company, who spoke on the rubber situation as it affects papermaking; PROFESSOR IVAN BENSON, journalism instructor at University of Southern California, who spoke on the Swedish timber situation as he found it on a recent trip to Scandinavia; General Chairman HERMAN L. JOACHIM of PASC, and Program Chairman for the February meeting; U. GRANT FARMER of Fibreboard Products, Inc.

3. Left to right: H. A. "Gob" DesMARAIS, with General Dyestuffs Corporation, who addressed PASC men on the current dyestuff situation as it affects papermaking; W. T. TILLOTSON, United States Gypsum Company; HARRY H. STILWELL, Albany Felt Company; VINCENT COLE, California-Oregon Paper Mills.

sued thus far. He suggested that papermakers interested in synthetic rubber for rolls and other uses in the mills should inquire of their suppliers for information.

Final speaker of the evening was H. A. "Gob" DesMarais, Pacific Coast manager of the General Dyestuff Corporation, who discussed the dyestuff situation as related to the war and to the paper mills. Mr. DesMarais emphasized the importance of color in paper and board, pointing to the angle of sales appeal, particularly effective among feminine buyers. Answering the question of the present demand for dyestuffs, DesMarais said that the industry is faced by three added responsibilities: U. S. Army requirements in uniform materials, South American-North American relationships in which dyestuffs play an important part, and the lend-lease program. A vari-colored chart was used by DesMarais to illustrate many of the points he developed.

At the conclusion of this talk, as with those previous, questions from the floor were invited. Following the final question period, President Joachim brought the February session to a close.

The following were present:

● The Flintkote Company, Pioneer Division: William Belleman, William Birdsey, Robert Cooper, Roy Culp, W. A. Kinney, Otto Sass, Dr. John Stanko, John Van Ounsem, Harold Willoughby, A. Eilersgaard, Paul Lentz, Dick Anderson.

Fibreboard Products, Inc.: Willard Axtell, U. Grant Farmer, Frank Wheelock, Frank Crochett, Arthur Dahl, E. J. Tolliver, George Eberhard, George Boeck.

California-Oregon Paper Mills: Taylor Alexander, Albert Clerx, Vincent Cole, Alonzo Hatch, Frank Eggert, Charles Remine.

United States Gypsum Co.: W. T. Tillotson, Floyd Adams, J. E. Hartford, Francis Mark.

Fernstrom Paper Mills: Charles Frampton, Robert Baum, J. B. Christopher.

Schumacher Wall Board Corp.; A. M. Turner, L. I. Crabb.

El Rey Products: Harold D. Brown.

California Container Corporation: E. V. Nugent.

Frank Frampton: Clare Crochett; Prof. Ivan Benson, U. S. C.; Herman L. Joachim, consulting engineer.

Harry H. Stillwell, Albany Felt Co.; Lloyd Ramsey, Adhesive Products Co.; Wilbur Foote, Bristol Company; Homer White, Dow Chemical Company; Bruce Wallace, Foxboro Company; H. A. DesMarais, General Dyestuff Corp.; R. D. Abbott, C. P. Hall Company; Robert Thieme, International Filter Co.; Herbert V. Springs, Mason, Springs, Inc.; George Cunningham, National Oil Products; Dr. A. O. Beckman, National Technical Laboratories; Tom Rhodes, Pacific Pulp & Paper Industry; Alvin Fink, Taylor Instrument Companies.

●

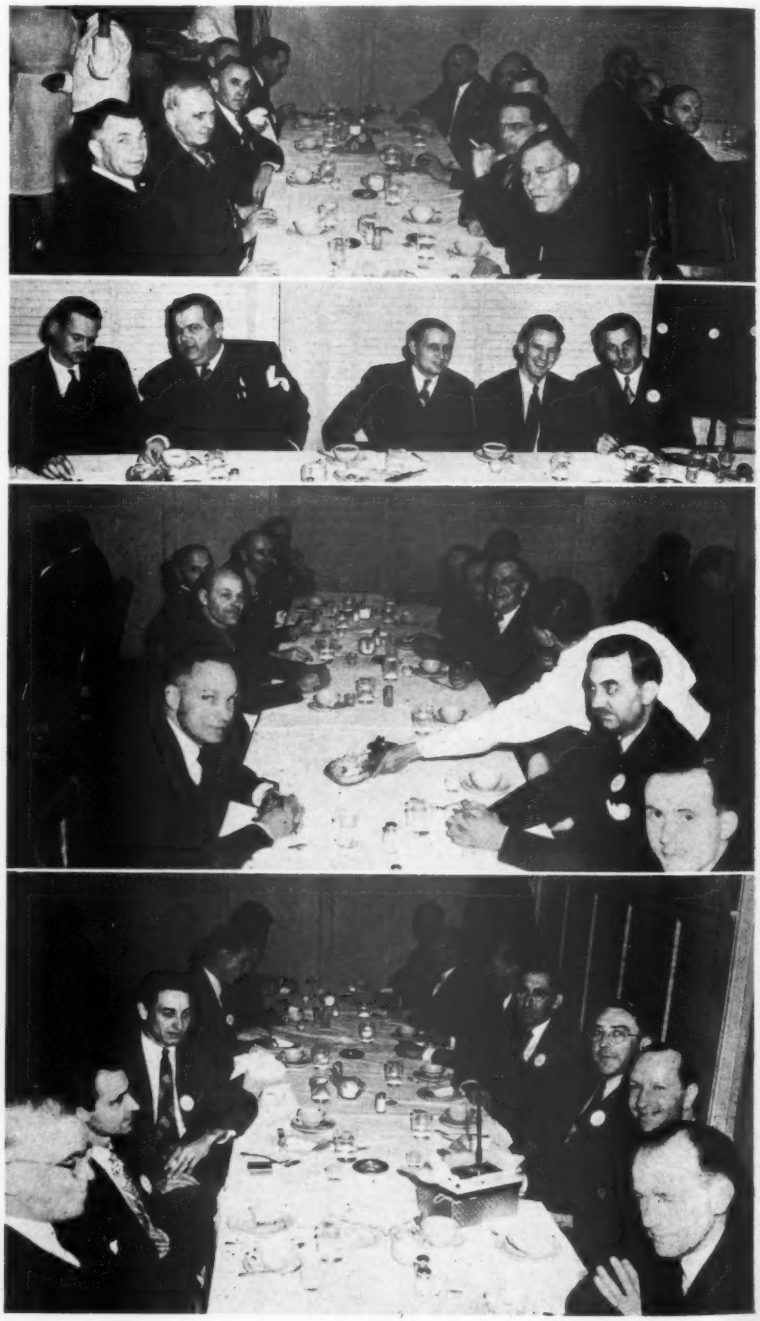
St. Helens Plants Well Guarded

● St. Helens Pulp and Paper Company and Fir-Tex Insulating Board Company, both of St. Helens, Oregon, established a guard system at their plants last month, following the outbreak of war. All entrances and vulnerable points around the plants are patrolled 24 hours each day.

Employees of these companies, from office boy to general manager, are now equipped with photo-identification buttons.

Each department of the pulp and paper plant is identified by a color. The employees, with the photo-identification buttons, are admitted only to their respective departments, as indicated by the color of their button. Special concession is needed to enter departments other than indicated by the pass.

R. W. Simeral, general manager of the Fir-Tex plant, says the guards have been deputized and carry revolvers. Here special buttons are made up for plant guests, which are turned back at the office as the visitor leaves the plant. Consequently all persons in the plant are expected to wear an employee's badge or a visitor's badge; if not they are challenged and required to account for their presence.



Views of the group at the February PASC meeting in Los Angeles

Wetting Agents in Pulp and Paper Making

● In a recently issued 80-page booklet entitled "Aerosol Wetting Agents," the American Cyanamid and Chemical Corporation gives the following on the uses of wetting agents in pulp and paper mills.

"For cleaning paper mill felts, the following procedure has been found satisfactory:

"Dilute 2½ gallons of 18° Baume commercial muriatic acid to 50 gallons with cold water. Saturate the felt with this solution and then immediately rinse with cold water. Then saturate the felt with a warm solution (100/120° F.) of 15% soda ash and 1 lb. Aerosol OS in 50 gallons of water. The felt can then be rinsed with warm water. This procedure is especially recommended for felts contaminated with high concentrations of calcium, magnesium and iron salts.

"In many cases a mixture consisting of 1 lb. Aerosol OS and 1 to 3 lbs. of soda ash in 50 gallons of warm water are made as a stock solution. Sufficient is used to saturate the felt which is then run 10-15 minutes. Complete rinsing should follow this treatment.

"For conditioning new felts, from 0.1% to 0.25% of Aerosol OT Aqueous 10% in water is very satisfactory. The Aerosol increases the rate at which the water will penetrate the felt and will consequently decrease the time necessary for conditioning.

"From 0.1% to 1.0% of Aerosol OT Aqueous 10% in water is helpful in wetting of sealing tape for application to hard sized cartons. The Aerosol OT Aqueous 10% not only causes the tape itself to be more readily wet, but also improves the wetting of the surface of the carton, especially in cold weather. It is not recommended that Aerosol OT be used in the glue made for making the tape, inasmuch as it is found that the tape which is subsequently dried and aged will actually wet less readily with water than a similar tape not cotnaining the Aerosol OT in the glue. The proper method of application is the use of Aerosol OT Aqueous 10% in the water used for wetting the tape prior to sealing operations.

"Extensive tests have indicated that wetting agents are not of practical value in the cooking of pulp by the sulphite process[58]. However, they are sometimes of assistance for removing colored bodies for high grade pulps, and they have been suggested for aiding the washing of pulp after cooking.

"The use of one pint of Aerosol OT Aqueous 10% for each 1,000 lbs. of 'broke' is frequently helpful in decreasing the time necessary for wetting out the broke and disintegrating it in the beater. On the other hand, extensive tests indicate that wetting agents do not increase the rate of hydration of ordinary pulp, but, in fact, they actually retard the rate of hydration[62].

"Experiments conducted with Aerosol OT Aqueous 10% in the manufacture of blotting paper produced unexpected results. Two quarts to one gallon of Aerosol OT Aqueous 10% was added to the water in the beater before the addition of 1500 lbs. of stock. The paper was made in the usual manner, and it was noted that the thickness of the paper did not vary appreciably from paper made without the Aerosol OT Aqueous 10%. The mullen strength of the paper was not varied appreciably; but the paper seemed to have a softer feel and was more limber than the untreated paper. Furthermore, the paper treated with the Aerosol OT Aqueous 10% appeared to lint more readily. When tested by the usual water absorbency method, there was less penetration into the paper treated with the Aerosol OT Aqueous 10% compared to that not so treated.

"Towels made from kraft stock usually have a lower absorbency upon ageing compared to towels made of higher grade stock. Aerosol OT, when applied as a dilute solution in the form of a spray just before the sheet reaches the calender roll, generally is helpful in decreasing the rate at which kraft towels will lose their absorbency on ageing. Usually 0.1% to 0.25% of Aerosol OT Aqueous 10% based upon the dry weight of the sheet is sufficient. The use of Aerosol OT in high grade towels usually does not result in better absorbency.

"One pint of Aerosol OT Aqueous 10% or Aerosol OT Clear 10% in each 50 gallons of dye solution is very helpful in promoting more rapid and more level dyeing of paper. In general, Aerosol OT should not be used with basic dye stuffs, inasmuch as such combinations may cause precipitation.

"In cases where paper is to be treated with aqueous solutions of extremely concentrated inorganic salts, such as sodium nitrate, zinc chloride, ammonium phosphate, the lower molecular weight members of the Aerosol Wetting Agents, such as Aerosol MA, Aerosol AY, and Aerosol IB, are found more advantageous than Aerosol OT, which has a tendency to salt out in concentrated solutions of electrolytes. Whenever possible, the highest molecular weight homologue should be used in a solution of a given salt or electrolyte, because of greater money value per unit of wetting power, provided, of course, that it is compatible with the mixture.

"It has been found that a 50-50 mixture of dibutyl phthalate and ethyl alcohol make an excellent transparentizing solution for tracing cloth. The ethyl alcohol serves as a diluent for the dibutyl phthalate, and it naturally evaporates after impregnation of the paper. Transparentized paper made in this manner cannot easily be written upon by ordinary ink, but the addition of Aerosol OT 100% to the treating solution will permit one to write upon the paper with ordinary ink.

"Care should be exercised in using the Aerosol Wetting Agents with paper sizings, for they usually lower water resistance."

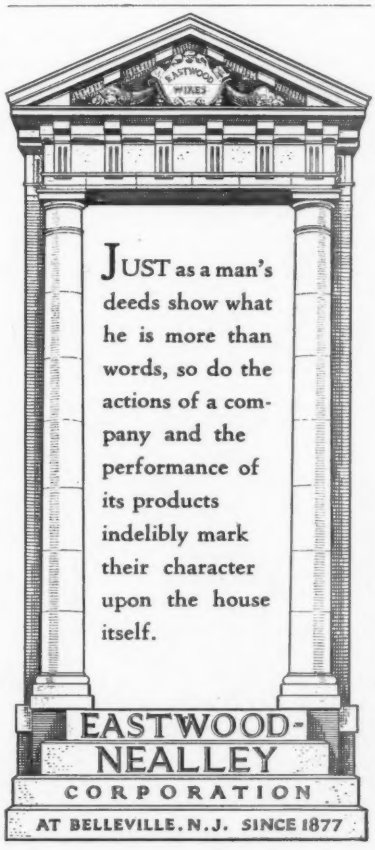
[62]Dixon, "The Relation Between Sheet Strength and Fibre Condition," Paper Trade Jour., 29-35 (July 18, 1940).

[63]McGovern and Chidester, "Wetting Agents in Sulfite Pulping," Paper Trade Jour., 35-8 (December 12, 1940).

[64]Poor, "Some Aspects of White-Water Flocculation," Paper Trade Jour., 110, No. 10, 37-8 (1940).

[65]Sanderson, Johnston and Mass, "Penertation During Sulfite Cooking," Can. J. Research, 8, 415-8.

On the Pacific Coast Aerosol wetting agents are available to the pulp and paper industry through the Pacific Coast Supply Company, Portland, Seattle and San Francisco.


JUST as a man's deeds show what he is more than words, so do the actions of a company and the performance of its products indelibly mark their character upon the house itself.
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By-Product Production In a Swedish Mill

"The Bergvig & Ala Nya Aktiebolag sulphate mill at Sandarna is extensively refining many of the by-products obtained in the manufacture of cellulose," reports The Swedish Wood Pulp Journal for November 15, 1941. "This work is done by a subsidiary company called 'A.-B. Bergviks Hartsprodukter.'

"The liquid rosin distillery was considerably enlarged last year, the output of which—in spite of reduced work at the sulphate mill—has been 50 per cent larger this year than last. The Bergvik distillery, however, is designed for the distillation of liquid rosin also from the other Norrland sulphate mills of the Pulp Company, and has received raw materials from them during the year. Even though unable to utilize the full capacity of the works, it is estimated that the 1941 production will amount to some 6,500 tons of pine oil, colophony, rosin pitch, and foundry oils, all of which are extremely valuable under present conditions.

"Most of the pine oil produced is made into soap in the Bergvik factory, but some is sold as raw material to other Swedish soap factories. According to a review of the soap industry published in "Finanstidningen," it has been possible this year to increase the output of soap by no less than 60 per cent on last year's figure, and the capacity of the factory—7,000 tons p. a. when forcing the work—seems to be fully utilized. The product, which is sold under the trade name "Rensapa," is of very high quality and greatly appreciated by the public.

Soundview Rebuilding Flat Screens

● The Soundview Pulp Company is rebuilding the 84 Valley flat screens in 21 lines which were installed at the time the first unit was completed in 1930.

The work of installing new vats, flow boxes, diaphragms, diaphragm straps and screen fasteners, was started the first week in January under the direction of J. H. McCarthy, resident engineer, and will be completed in June. All the preparatory work was done in the company's shops, starting last summer. The new vats of Wolmanized Douglas fir were fabricated and pre-assembled to check the fitting of the parts before the installation work began. One line of screens is closed down at a time. The new vats are 43 inches in width, 1-inch wider than the old, to match the new screens installed in 1937. While the screens are down new bronze Smythe screen plate fasteners are being installed, the cams trued, bearings checked and the entire assembly painted a dairy white.

Approximately 50,000 Everdur bolts will be required for the new diaphragms and fasteners. The new diaphragm straps are also of Everdur.

When the rebuilding job is completed Soundview will have a modern screening system in the old mill as well as in the newer unit where 84 bronze vat Impco flat screens were installed in 1937.

Decontamination Corps Organized In Port Angeles

● Civilian defense officials at Port Angeles, Wash., believe they have in their Decontamination Corps one of the most effective units of the kind to be found on the Pacific Coast.

The corps, formed to clean up areas affected by gas attacks, was organized by Harold Fretz, chief chemist of the Port Angeles division of Rayonier Incorporated. It is made up almost entirely of chemists, chemical engineers, technicians and experienced first aid men from the three Port Angeles pulp and paper mills. The only exceptions are truck drivers from the city street and engineering departments.

Executive head of the corps is Henry Charnell, assistant chief chemist of Rayonier. Ray Austin, chief chemist of the Crown Zellerbach Corporation's Port Angeles division, and E. J. Cavanaugh, resident engineer of Fibreboard Products, Inc., Port Angeles division, are assisting. Austin will be in charge of equipment and Cavanaugh will supervise the transportation of chemicals and materials.

The unit is divided into five squads. Pulp and paper mill men making up these squads include C. E. Dyar, Nelson Hartnagel, E. H. Woodruff, John Steinberg and Sterling Bailey, leaders; George Gouker, J. W. Wenger, Kenneth C. Walker and J. H. Hisey, assistant leaders; Ernest Wagner, Calvin Foster, Murray Bennett, C. K. Knapman, Fred Regal, Clarence Johnson, M. Sherk, J. V. Venables, Ray Porter, Robert Holcomb, G. T. Mickel, A. G. Cozza, Riley Nelson, Elmer Galloway, Forrest Ehlers, H. E. Ross, F. P. Fisher Jr., B. N. Morehead, Jack Vollendorff, George Bratsberg, John Shackleford, P. C. Nash, Joe Wolfe, George Knorr, Clair McCormick, D. C. McElravy and G. M. Marvin.

War Slows Pacific Mills Expansion Program

● John Young, manager of Pacific Mills, Ltd., reports that progress is being made in connection with the company's $585,000 expansion program recently authorized by the Canadian government, but that the date of completion is "anybody's guess."

Most of the other pulp and paper development in British Columbia is proceeding under similar conditions, but considerable progress has been made towards obtaining priority on material required from the United States.

Kenneth Gregory of Toronto has been appointed British Columbia representative of the priorities branch of the Canadian department of munitions and supply, with offices in the Marine Building, Vancouver, and he states that the preference rating order No. P 100, which has been available to United States manufacturers, for some time, has now been extended to Canada. Its extension is a reflection of the increased co-operation between the two countries in integrating resources.

The P 100 has widespread application in that it permits an automatic rating to be assigned to cover material required for maintenance, repair and operating supplies.

The rating does not apply to equipment needed for new construction, but even in that field some improvement has been noted, and the general opinion is that it will be possible to carry out sufficient new expansion this year to enable the mills to increase their production materially before the end of the year.

Florence Elected to Port Angeles School Board

● Eldo A. Florence, a chemist at Port Angeles division of Rayonier Incorporated, was elected to a directorship on the Port Angeles school board in December for a three-year term. He has been active in Parent-Teacher Association Work, as well as in the Rayonier mill's first aid program.

Morseth Joins National TAPPI

● Among those who have lately become active members of TAPPI is Gordon Morseth, digester foreman, for the Puget Sound Pulp & Timber Company at Bellingham, Washington.

Mr. Morseth graduated in 1937 from the University of Washington in Seattle.

John Lobb's Daughter and Son-in-Law Visit Camas

● Mr. and Mrs. John J. Lobb of Camas enjoyed a Christmas visit from their daughter and son-in-law, Mr. and Mrs. Edward P. Hayes of Chester, Penn., who traveled 7,000 miles for the reunion.

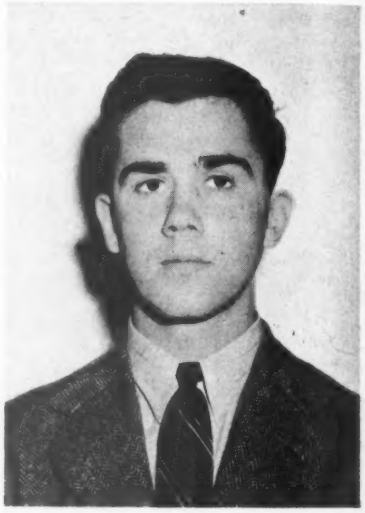
While in Camas they went skiing with Mr. and Mrs. Gus Ostenson at Mount Hood and took in other scenic features of the Pacific Northwest. Mr. Hayes is with the Sun Oil Company in Chester where Mr. and Mrs. Lobb made their home before moving to Camas two years ago when Mr. Lobb was appointed assistant to the resident manager of the Camas mill, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation.

Frank Iskra Awarded M. I. T. Scholarship

● Frak J. Iskra, for the past two years messenger and sample boy for the Grays Harbor Division of Rayonier Incorporated at Hoquiam, Washington, was recently awarded a scholarship at the Massachusetts Institute of Technology and is now in Cambridge studying chemical engineering.

The announcement that Frank Iskra had been awarded the Northwest Regional Scholarship of the Massachusetts Institute of Technology Alumni Association, was made by Holland Houston of the Seattle office of Rayonier Incorporated, vice president of the M.I.T. Northwest Regional Scholarship. The scholarship provides $600 the first year and if Iskra's grades are good, it will in all likelihood be extended for additional years, according to a representative of M.I.T.

To earn his board he is waiting on



FRANK J. ISKRA, Awarded M. I. T. Scholarship

tables at Walker Memorial Hall, M.I.T.'s large campus dining room.

Frank J. Iskra was born of Slovakian parents on a farm on the Humptulips River, 25 miles north of Hoquiam in 1921. During his four years in high school he worked as a janitor in a bank in Aberdeen and on the newspaper counter for the Aberdeen World. Graduating from high school in June, 1939, he immediately went to work for Rayonier Incorporated at $110 per month. During the two years he was with Rayonier Incorporated his salary was advanced to $130 per month and, as he was living at home with his parents, he was able to save $2,100. During noon hours young Iskra studied chemistry in the time office.

Iskra senior, who was born in Austria, is a lumber piler for the Wilson Brothers sawmill on Grays Harbor.

Buccini Elected Chamber Of Commerce Official

● Peter Buccini, assistant to the manager of the St. Helens Pulp and Paper Company bag plant, St. Helens, Oregon, has been elected as treasurer of the St. Helens chamber of commerce.

Fir-Tex Pays Bond Interest

● Fir-Tex Insulating Board Company of St. Helens, Oregon, ordered payment December 29th of $101,319 in bond interest covering 8 coupons maturing from July 1, 1931, through January 1, 1935. Only $6,300 of the coupons had previously been redeemed.

The 7 per cent first mortgage bonds were issued January 26, 1931, and matured January 26, 1941.

For the first time since it was organized in 1928 Fir-Tex is reported to be well over on the profit side of the ledger with a net income of $144,318 above all charges for the first 11 months of 1941. It is expected that the net income will be around $160,000 for the year. In 1940 there was a book profit of $3,722. Prior to 1940 operations were at a loss and by December 31, 1940 the earned surplus deficit amounted to $1,297,367.

Sales in 1939 were $957,025, in 1940, $1,172,614, and in 1941 will considerably exceed the latter figure.

Fir-Tex insulating board is now sold by more than 4,000 dealers in all parts of the United States. This dealer organization has been built up in approximately seven years' time by Dant & Russell of Portland, sales agents for the company's output.

Officers and operating executives of the company include: Peter Kerr, president; James McDonald, vice president; John S. Coke, secretary; N. J. Barbare, treasurer; Ray W. Simeral, vice president and general manager; George Quigg, superintendent; and J. G. Long, technical director.

Kyles Serving With R. A. F.

● J. A. "Jock" Kyles, long-time employee of Powell River Company and until recently mill secretary, has been made an officer with the Royal Air Force and is serving with the famous regional control in England that directs and detects night bombing.

J. C. Hill, for several years assistant secretary at Powell River, has succeeded Kyles.

Guest Speakers Appear Before Camas Paper School

● Several guest speakers, who are specialists of their respective fields, have recently appeared on the program of the Camas Paper School, Camas, Washington. These include the following:

Harry Richmond, chief engineer of Electric Steel Foundry Company, Portland, speaking on "Metallurgy"; W. N. Kelly, manager, Longview Mill, Pulp Division Weyerhaeuser Timber Company, Longview, who spoke on "Progress in Sulphite Pulping"; Charles Quentel, of C. C. Moore Company, who's subject was "Evaporation."

Clarence W. Richen, School of Forestry, Oregon State College, Corvallis, Oregon, is to speak to the fourth-year class on January 28th. His subject is "Selective Logging." Pierre R. Hines, the last of the outside speakers scheduled for the current school-year, is to talk to the third-year class February 4th, on "Conveying Materials."

St. Helens Credit Union Reports Good Year

● The St. Helens Federal Credit Union, composed of 289 members, who are employees of St. Helens Pulp and Paper Company, St. Helens, Oregon, held its annual meeting on January 15th. A six per cent dividend was declared, which amounts to $680. This sum will be paid to shareholders for 1941.

Officers elected for 1942 include the following: president, B. P. Graves; vice president, Martin Burlingame; treasurer, H. D. Johnson, and secretary, William Skowhede.

The credit union was organized in June, 1939, and has made loans totaling $71,896.45, to date. During the period of operation there has been $29.75 charged off as losses. The net profit for 1941 was $1101.94 and the total assets are now $17,755.10.

Paul Millard's Daughter Married in Camas

● Miss Eileen Millard, of the Portland offices of Crown Zellerbach Corporation, was married to Francis Reierson on December 24th, at the Presbyterian Church, Camas, Washington. She is the daughter of Mr. and Mrs. Paul Millard of Camas. Mr. Millard is foreman of the finishing room of the Camas mill of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation.

Mr. Reierson enlisted with the Coast Guard early in January, and Mrs. Reierson is residing in Portland.

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It's good practice to give your conveyor belts a thorough examination at frequent intervals. Uneven wear indicates misalignment and may cause premature failure in even the best belts. In case of doubt or trouble, consult the Pioneer representative. We're committed to help conserve rubber for Victory. This is one way we would like to help. The other is to continue building the best belts we know how with the materials that are available.
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WANTED — 62" to 72" Duplex Sheeter, complete with drives. Also Layboy to fit this sheeter. In making your offer please submit full details and specifications. Reply, Box 10, Care of Pacific Pulp & Paper Industry, 71 Columbia St., Seattle, Wash.

TURBINE WANTED — A good used 1,000 HP Water Turbine, operating on 200 to 230 ft. head. In submitting your offer please give full details and specifications. Reply, Box 11, Care Pacific Pulp & Paper Industry, 71 Columbia St., Seattle, Wash.

Rice Straw Mill Producing Towels

● The Pacific Coast Pulp & Paper Co., Richvale, California, is now turning out one ton of paper towels per day manufactured from three tons of rice straw. The towels are made from pulp made by a sulphite cooking process devised by A. M. Thomsen, pulp and paper engineer.

Fred E. Yokom, formerly with the Northwest Paper Co., Cloquet, is now in charge of production at the Richvale plant.

D. M. Thomson, president of the company has announced that the company plans to increase its capacity to 10 tons per day, remodel the plant and make other types of paper besides towels. The towels are sold and used on the West Coast at the present time.

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Washington Receives Money From National Forests

● The governor of Washington has been notified that the state will receive a warrant on the U. S. Treasury for $234,172.55. This amount represents one-fourth the gross receipts of $936,690.22 from the Washington national forests for the fiscal year ended June 30, 1941, and is the largest payment yet made from this source to the state. Another 10 per cent will be spent for roads and trails in the forests, according to associate regional forester F. H. Brundage, of the U. S. department of agriculture's forest service, Portland. The major portion of the receipts comes from the sale of timber for conversion into lumber and pulp.

The Olympic national forest receipts from timber and other resources were about $493,870. The Snoqualmie took in about $148,000; the Mount Baker about $80,000; the Wenatchee a little more than $66,000. The state treasurer will distribute one-fourth of these amounts to the counties in which the forests are situated. The money goes to the road and school funds.

Oregon will receive $183,836.27 from national forest receipts. In that state the Malheur's receipts due to the full utilization of the forest resources were about $180,000. Grant County's share of the forest income should be approximately one-fifth as much as the entire 1940 county tax levy.

California will receive $153,041.63. Of this, the Plumas forest has contributed $44,273, according to Brundage.

Establish British Columbia Research Organization

● R. V. Stuart, for many years manager of the British Columbia Loggers Association at Vancouver, has resigned to form a new research organization of his own, and H. N. Burke has been appointed as his successor.

Mr. Stuart tells Pacific Pulp & Paper Industry that he intends to devote most of his time to research into the various new channels for forest utilization in British Columbia, and that special attention will be given to the prospects for expansion of the pulp and paper industry.

"The timber industry of British Columbia has already entered a transition period resulting from the gradual depletion of the great coastal forests which could not be fully replaced in actual size of tree for centuries," said Mr. Stuart.

"Most far-seeing lumbermen already see the handwriting on the wall. They realize that in the future there will be less emphasis on production of lumber as we know it today—in terms of boards and timbers, and more on complete utilization of smaller trees and species now neglected for the production of pulp and paper, plywood, veneers, fabricated stock, plastics and so on."

Wenger Visits Ocean Falls

● J. W. Wenger, newsprint development division, central technical department, Crown Zellerbach Corporation, Camas, Washington, spent the last two weeks of January at Pacific Mills, Limited, Ocean Falls, British Columbia on technical service work.

Port Angeles Mill Whistles Sound Raid Warnings

● Whistles of the three Port Angeles pulp and paper mills were enlisted in the civilian defense program immediately upon the outbreak of the war in December. They augment the town's fire siren in sounding war emergency alarms, their blasts carrying to outlying sections and suburbs of the community where the siren's sound does not reach.

The three plants—Crown Zellerbach Corp., Fibreboard Products Inc., and Rayonier Incorporated, were speedily adjusted to blackout conditions in the first few days of the war and are able to operate at night without showing lights.

War Accelerating Demand For B. C. Paper Products

● Sidney Roofing & Paper Company and several other British Columbia papermaking mills had an unprecedented rush for supplies suitable for blackout purposes in December, resulting in stocks being virtually depleted, but since then manufacturing of certain lines has been speeded up with the result that an abundant accumulation is reported.

From now on paper box and container companies operating in British Columbia expect a steady increase in demand, due to threatened shortage of tin and the likelihood that cans will be restricted wherever possible in favor of some other form of packing.

Officials of Pacific Mills, National Paper Box and other companies are now making a survey to ascertain what lines now requiring cans may be made a potential market for paper and board containers.

Hawley Credit Union Holds Annual Meeting

● Hawley Employees' Federal Credit Union Number 4059, of the Hawley Pulp and Paper Company, Oregon City, Oregon, held it annual meeting on January 29th, and declared a dividend of approximately four per cent, which will be paid shareholders for 1941. The organization has 180 members, with assets of $3500.

Officers elected for the ensuing year are: president, Carl Elliott; vice president, Frank B. Kroll; secretary-treasurer, R. Ballou. Directors: H. Sosnovàski, J. E. Morris, J. D. Lough and G. E. Fidler. Credit committee: Ralph F. A. Rindflesch, Layton Traylor, J. S. Hinkle, Richard W. Long and Lester H. Deery. Supervisory committee: Gene Good, Howard Roos and Robert Fosberg.

Camas Mill Can Black-Out in One Minute

● Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington, blacked out the entire plant in two hours and twenty minutes, when instructions were first put out to do so in the Columbia River area, following the recent attack in the Pacific Ocean. This black-out took place on December 8th and all employees continued at their regular work, except about nine persons who were layed off work in number one finishing room. These men made up their lost time later in the week.

Later in the month organization was completed for complete black-out of the plant in sixty seconds, without interfering with continuous production.

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New Zealand Now Making Own Insulating Board

● New Zealand has taken steps to make itself independent of imports of insulating wall board from Canada and other sources, according to information received in British Columbia.

The new plant of the New Zealand Forest Products, Ltd., of Auckland, has put "Pinex" on the market. The mill is located near Auckland and capacity is reported to be sufficient to supply the entire New Zealand demand.

Many orders have been received and several overseas concerns have made inquiries regarding the new product.

Machinery has been ordered to increase capacity of the present plant by 50 per cent.

Crown Leases Camas Inn

● A. H. McLean leased the Crown Willamette Inn, Camas, Washington, from Crown Zellerbach Corporation, effective February 1st. Mr. McLean has managed the inn for the company during the past year. He is now acting as proprietor and manager.

G. M. Julien, assistant to resident manager, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, said Mr. McLean is an experienced hotel operator.

Before coming to Camas a year ago Mr. McLean was, for three years, manager of hotels at Guam and Midway Island. Prior to that he was manager of the Emerson hotel of Hoquiam and the Chinook in Kelso.

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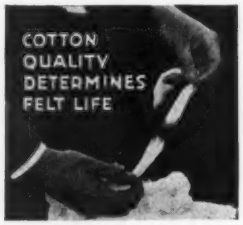

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